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Book No. 16

AN
E S S A Y
ON THE
CAUSES OF THE VARIETY
OF
COMPLEXION AND FIGURE
IN THE
HUMAN SPECIES.
TO WHICH ARE ADDED,
STRICTURES
ON LORD KAMES'S DISCOURSE
ON THE
ORIGINAL DIVERSITY OF MANKIND.

BY THE REV. SAMUEL STANHOPE SMITH, D.D.

Vice-President and Professor of Moral Philosophy
In the College of New-Jersey;
And Member of the American Philosophical Society
Held at Philadelphia,
For promoting Useful Knowledge.

A NEW EDITION.
WITH SOME ADDITIONAL NOTES,
By a Gentleman of the UNIVERSITY of Edinburgh.

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THE substance of the following Essay was delivered in the annual Oration, before the Philosophical Society in Philadelphia, February 28th, 1787.—And the whole is published at the request of the Society.

At a MEETING of the AMERICAN PHILOSOPHICAL SOCIETY, on Friday Evening, the 28th of February 1787.

ON MOTION ORDERED,

***T**HAT the thanks of the Society be given to the Rev. Dr. SAMUEL S. SMITH, for his ingenious and learned Oration delivered this Evening, and that he be requested to furnish the Society with a Copy of the same for Publication.*

Extract from the Minutes,

JAMES HUTCHINSON,	} Secretaries.
ROBERT PATTERSON,	
SAMUEL MAGAW,	
JOHN FOULKE.	



P R E F A C E

BY THE EDITOR.

THERE is certainly no subject in the science of NATURAL HISTORY more curious and interesting than that which respects the variety of COMPLEXION and of FIGURE among mankind:—And although much has been written to point out these varieties, and to investigate the causes which have produced them, yet hitherto but little accurate information has been derived from the most laborious researches of the first naturalists of the age.

THE writings of Jesuits and of Buccaneers are the principal sources from which our knowledge of man in his *savage* state has been derived; but the falsehoods and the errors with which their works are pregnant, are daily becoming more evident; and those systems or hypotheses, which were established on authorities so extremely weak, are now tottering into that contempt and neglect, which must necessarily await every system whose basis is not constructed of facts.

DURING the last 60 years, we have collected more *data* concerning the natural history of man than have, perhaps, been given to us in every preceding age; and it would certainly be uncandid not to observe that it is

to Britain we are chiefly indebted for this augmentation of our knowledge of the *Human Species*.—The three voyages of that great, but unfortunate, navigator Captain Cook, have especially contributed to eradicate former errors, and to establish permanent truths in the history of man.

BUT notwithstanding the large collection of facts of which we are possessed, the Natural History of Man still continues among the most imperfect subjects of human inquiry. The difficulties necessarily attendant on this part of knowledge are extremely obvious; but, independent of these difficulties, there are other circumstances which, for some time at least, must leave a chasm in the history of our species.

THOSE extensive regions of Africa and of America, with the limits of which we are scarcely acquainted, will, no doubt, furnish future philosophers with new varieties of man: varieties whose causes will afford ample room for speculation and inquiry.

IF we can rely on the testimony of some voyagers and travellers, there are tribes of men in the northern continent of the New World, whose COMPLEXION, in particular, differs very essentially from that of the other nations of Indians*; and whose history, therefore, could not fail of being interesting to the philosopher.

THUS, it is affirmed, that in the year 1774, the crew of a Spanish frigate discovered a *white* and *fair* nation on the west coast of America, in the latitude of 55° 43' †. Were this fact more authentically decided, it

* Memoire sur les Pays de l'Asie et de l'Amerique, par J. N. Buache. Paris, 1775.

† La Hontan, Nouv. Voyage. lett. 16. vol. I.

would, as Mr Zimmerman observes, afford new matter to many systems, and it might, perhaps, have no inconsiderable influence on our notions concerning the operation of PHYSICAL causes.

THE noble ardor for discovery and investigation which so eminently characterises the eighteenth century, it is to be hoped, will not suffer us to remain much longer ignorant of the natural history of our species:—New phenomena of Complexion and of Figure will daily be brought to light; and the history of man will then assume its just station among the subjects of human inquiry.

IN the present state of our knowledge, a *systematic view* of the Natural History of Man can hardly be expected; a collection of facts arranged with but little attention to method is all we can naturally hope for.

THE author of the work now before us, furnishes us, however, with an instance how much may be accomplished, even by an individual, in a subject replete with difficulties, when genius and judgment are aided by labour, and when the object is pursued with a steady regard to truth.

BUT it is not our intention to enter into any panegyric of the Essay of Dr Smith;—the public will ever judge for themselves, and pay the tribute of applause where it is due.

THE work was originally printed in Philadelphia, and the present edition has been carefully corrected from a copy containing a great number of alterations, &c. in the author's own hand-writing, with which the Editor was fortunately furnished,

IT was our original intention to have greatly enlarged both the *Essay* and the *Structures*, with *Notes* and *Illustrations*; but a variety of unforeseen circumstances have prevented us from accomplishing this object:—we cannot, therefore, but apologise for the small number we have added;—though we hope the long delay of the work will be, in some measure, compensated for by the superior neatness and correctness of this *European Edition*.

EDINBURGH, }
April, 1778. }

E S S A Y
O N T H E
CAUSES OF THE VARIETY
O F
COMPLEXION AND FIGURE
I N T H E
H U M A N S P E C I E S.

IN the history and philosophy of human nature, one of the first objects that strikes an observer is the variety of complexion and of figure among mankind. To assign the causes of this phenomenon has been frequently a subject of curious speculation. Many philosophers have resolved the difficulties with which this inquiry is attended, by having recourse to the arbitrary hypothesis that men are origi-

nally sprung from different stocks, and are therefore divided by nature into different species*. But as we are not at liberty to make this supposition, so I hold it to be unphilosophical to recur to hypothesis, when the whole effect may, on proper investigation, be accounted for by the ordinary laws of nature.

On this discussion I am now about to enter; and shall probably unfold, in its progress, some principles, the full importance of which will not be obvious, at first view, to those who have not been accustomed to observe the operations of nature with minute and careful attention. Principles, however, which, experience leads

* It is no small objection to this hypothesis, that these species can never be ascertained. We have no means of distinguishing how many were originally formed, or where any of them are now to be found. And they must have been long since so mixed by the migrations of mankind, that the properties of each species can never be determined. Besides, this supposition unavoidably confounds the whole philosophy of human nature.—*See conclusion of this Essay.*

me to believe, will acquire additional evidence from time and observation.

Of the causes of these varieties among mankind, I shall treat under the heads—

I. Of CLIMATE.

II. Of the STATE of SOCIETY.

In treating this subject, I shall not espouse any peculiar system of medical principles which, in the continual revolutions of opinion, might be in hazard of being afterwards discarded. I shall, as much as possible, avoid using terms of art; or attempting to explain the *manner of operation* of the causes, where diversity of opinion among physicians has left the subject in doubt.

And, in the beginning, permit me to make one general remark, which must often have occurred to every judicious inquirer into the powers both of moral and

of physical causes—that every permanent and characteristical variety in human nature, is effected by slow and almost imperceptible gradations. Great and sudden changes are too violent for the delicate constitution of man, and always tend to destroy the system. But changes that become incorporated, and that form the character of a climate or a nation, are progressively carried on through several generations, till the causes that produce them have attained their utmost operation. In this way, the minutest causes, acting constantly, and long continued, will necessarily create great and conspicuous differences among mankind.

I. Of the first class of causes, I shall treat under the head of climate.

In tracing the globe from the pole to the equator, we observe a gradation in the complexion nearly in proportion to the latitude of the country. Immediately below the arctic circle a high and sanguine colour prevails. From this you descend to

the mixture of red and white. Afterwards succeed, the brown, the olive, the tawny, and at length the black, as you proceed to the line. The same distance from the sun, however, does not, in every region, indicate the same temperature of climate. Some secondary causes must be taken into consideration as correcting and limiting its influence. The elevation of the land, its vicinity to the sea, the nature of the soil, the state of cultivation, the course of winds, and many other circumstances, enter into this view. Elevated and mountainous countries are cool in proportion to their altitude above the level of the sea—Vicinity to the ocean produces opposite effects in northern and southern latitudes; for the ocean, being of a more equal temperature than the land, in one case corrects the cold, in the other moderates the heat. Ranges of mountains, such as the Appenines in Italy, and Taurus, Caucasus, and Imaus, in Asia, by interrupting the course of cold winds, render the protected countries below them warmer, and the coun-

tries above them colder, than is equivalent to the proportional difference of latitude. The frigid zone in Asia is much wider than it is in Europe; and that continent hardly knows a temperate zone. From the northern ocean to Caucasus, says Montesquieu, Asia may be considered as a flat mountain. Thence to the ocean that washes Persia and India, it is a low and level country without seas, and protected by this immense range of hills from the polar winds. The Asiatic is, therefore, warmer than the European continent below the fortieth degree of latitude; and, above that latitude, is much more cold. Climate also receives some difference from the nature of the soil; and some from the degree of cultivation.—Sand is susceptible of greater heat than clay; and an uncultivated region, shaded with forests, and covered with undrained marshes, is more frigid in northern, and more temperate in southern, latitudes, than a country laid open to the direct and constant action of the sun. History informs, that, when

Germany and Scythia were buried in forests, the Romans often transported their armies across the frozen Danube; but, since the civilization of those barbarous regions, the Danube rarely freezes. Many other circumstances might be enumerated, which modify the influence of climate. These will be sufficient to give a general idea of the subject. And by the intelligent reader they may be easily extended, and applied to the state of particular countries *.

B 4

* IT has long been known, that elevated or mountainous countries are much cooler than countries consisting of plains and valleys. Indeed, the difference of heat in these opposite situations, is so considerable, that even under the equator the mountains are covered with collections of eternal snow. As we ascend the Alps, the Andes, and the Apalachian, those great chains, the former of which divides some of the fairest portions of Europe, and the latter, which run through almost the whole extent of America, we observe *nearly* a regular diminution in the temperature of the atmosphere. On the summits of some of those mountains, we in vain look for the genial influence of the *sun*:—Every animal, every vegetable, exhibits

From the preceding observations we derive this conclusion; That there is a general

incontestable evidence of *its* feeble operation :—Even in the warmest regions of our globe, therefore, on the more elevated lands, the complexion of man may remain but little influenced by heat. Thus, although at the foot of the Andes we find a race of swarthy men; yet on the valley of Quito, which is elevated several thousand feet from the level of the sea, the inhabitants are by no means swarthy.

The VICINITY of a country to the sea will also, in some degree, influence its climate. The temperature of the ocean is more equable than that of the land: Hence countries bordering on the ocean will be cooler in summer and warmer in winter, than such as are at a distance from it.

From the nature of the SOIL, climate also receives some alteration. The sandy soils, such as are to be found in many of the eastern countries, are well known for their insupportable heat.

CULTIVATION has a most wonderful influence in altering the climate of a country. This the experience of every day teaches us: and we may lay it down as a fundamental proposition, that a country buried in forests, and covered with marshes, will be much

ratio of heat and cold, which forms what we call climate, and a general resemblance

colder than a country which has undergone a degree of cultivation. In the latter case, the rays of the sun have a direct action upon the surface of the earth; through the medium of which, it is well known our atmosphere is principally heated: whereas, in the former case, the rays of the sun with difficulty communicate their influence to the earth; and the prodigious perspiration from the leaves and other surfaces of the vegetables, together with the evaporation from the marshes, will prove a great source of cold. This change in the climate of a country from cultivation is frequently effected very rapidly. Thus in different parts of North America, since the beginning of the present century, and even in the memory of many who have scarcely passed the period of manhood, the severity of the winter seasons has been greatly mitigated: And it may reasonably be conjectured (notwithstanding what Mr Kirwan seems to suppose to the contrary), that in the lapse of a few centuries, the climate of this continent will be as *moderate* as that of Europe. Similar changes from cultivation have been observed in the climate of Germany since the time of Julius Cæsar, and in that of Russia during the present century. Nor is the temperature of these climates as yet by any means stationary. Germany, it is true, is in general well culti-

of nations, according to the latitude from the equator ; subject, however, to innumerable varieties from the infinite combinations of the circumstances I have suggested. After having exhibited the *general* effect, I shall take up the capital deviations

vated ; but the extensive deserts and forests which lie to its north and north-east, render it at present much colder than it otherwise would be :—For *the state of uncultivated lands adjacent to the best cultivated country, has a great influence on the climate of the latter.* Thus 1700 years ago, Italy was much better cultivated than it is at present ; and yet at that time the cold of the climate was so intense as to freeze the wine in their casks. Virgil, who relates this fact, also gives directions for sheltering cattle from the frost and snow of the winter season ; directions which at present are entirely unnecessary to the Italian. The ingenious Dr Williamson has beautifully explained this seeming difficulty, by having recourse to the state of the countries which lie to the north of Italy. These, he observes, in the time of Cæsar, were buried in forests ; and the climate being consequently cold, Italy could not but be considerably affected : but since Germany has been better cultivated, its climate, and that of Italy, have both become more temperate.

EDITOR.

from it that are found in the world, and endeavour to show, that they naturally result from certain concurrences of these modifying causes.

Our experience verifies the power of climate on the complexion. The heat of summer darkens the skin, the cold of winter chafes it, and excites a sanguine colour. These alternate effects in the temperate zone tend in some degree to correct one another: But when heat or cold predominates in any region, it impresses, in the same proportion, a permanent and characteristic complexion. The degree in which it predominates may be considered as a constant cause to the action of which the human body is exposed: This cause will affect the nerves by tension or relaxation, by dilatation or contraction—It will affect the fluids by increasing or lessening the perspiration, and by altering the proportions of all the secretions—It will peculiarly affect the skin by the immediate operation of the atmosphere, of the sun's rays,

or of the principle of cold upon its delicate texture. Every sensible difference in the degree of the cause, will create a visible change in the human body. To suggest at present a single example.—A cold and piercing air chafes the countenance and exalts the complexion. An air that is warm and misty relaxes the constitution, and gives some tendency, in valetudinarians especially, to a bilious hue. These effects are transient, and interchangeable in countries where heat and cold alternately succeed in nearly equal proportions. But when the climate constantly repeats the one or the other of these effects in any degree, then, in proportion, an habitual colour begins to be formed. Colour and figure may be styled habits of the body. Like other habits, they are created, not by great and sudden impressions, but by continual and almost imperceptible touches. Of habits both of mind and body, nations are susceptible as well as individuals. They are transmitted to offspring, and augmented by inheritance. Long in growing to

maturity, national features, like national manners, become fixed, only after a succession of ages. They become, however, fixed at last. And if we can ascertain any effect produced by a given state of weather or of climate, it requires only repetition during a sufficient length of time, to augment and impress it with a permanent character. The sanguine countenance will, for this reason, be perpetual in the highest latitudes of the temperate zone; and we shall for ever find the swarthy, the olive, the tawny, and the black, as we descend to the south.

The uniformity of the effect in the same climate, and on men in a similar state of society, proves the power and certainty of the cause. If the advocates of different human species suppose that the beneficent Deity hath created the inhabitants of the earth of different colours, because these colours are best adapted to their respective zones; it surely places his benevolence in a more advantageous light to say, he has given to human nature the power of ac-

commodating itself to every zone. This pliancy of nature is favourable to the unions of the most distant nations, and facilitates the acquisition and the extension of science, which would otherwise be confined to few objects, and to a very limited range. It opens the way particularly to the knowledge of the globe which we inhabit; a subject so important and interesting to man.—It is verified by experience. Mankind are for ever changing their habitations by conquest or by commerce. And we find them in all climates, not only able to endure the change, but so *assimilated* by time, that we cannot say with certainty whose ancestor was the native of the clime, and whose the intruding foreigner.

I will here propose a few principles on the change of colour, that are not liable to dispute, and that may tend to shed some light on this subject.

In the beginning, it may be proper to observe, that the skin, though extremely

delicate and easily susceptible of impression from external causes, is, from its structure, among the least mutable parts of the body*. Change of complexion does for this reason continue long, from whatever cause it may have arisen. And if the causes of colour have deeply penetrated the texture of the skin, it becomes perpetual. Figures, therefore, that are stained with paints inserted by punctures made in its substance, can never be effaced†. An ardent sun is able entirely to

* Anatomists inform us that, like the bones, it has few or no vessels, and therefore is not liable to those changes of augmentation or diminution, and continual alteration of parts, to which the flesh, the blood, and whole vascular system are subject.

† It is well known what a length of time is required to efface the freckles contracted in a fair skin by the exposure of a single day. Freckles are seen of all shades of colour. They are known to be created by the sun; and become indelible by time. The sun has power equally to change every part of the skin, when equally exposed to its action. And it is, not improperly, observed by some writers, that colour may be justly considered as an universal freckle.

penetrate its texture. Even in our climate, the skin, when first exposed to the direct and continued action of the solar rays, is inflamed into blisters, and scorched through its whole substance. Such an operation not only changes its colour, but increases its thickness. The stimulus of heat exciting a greater flux of humours to the skin, tends to incrassate its substance, till it becomes dense enough to resist the action of the exciting cause*. On the same principle, friction excites blisters in the hand of the labourer, and thickens the skin till it becomes able to endure the continued operation of his instruments. The face or the hand, exposed uncovered during an entire summer, contracts a colour of the darkest brown. In a torrid climate, where the inhabitants are naked, the colour will be as much deeper as the ardor of the sun is both more constant and more intense.

I

* Anatomists know that all people of colour have their skin thicker than people of a fair complexion, in proportion to the darkness of the hue.

And if we compare the dark hue that, among us, is sometimes formed by continual exposure, with the colour of the African, the difference is not greater than is proportioned to the augmented heat and constancy of the climate*.

The principle of colour is not, however, to be derived solely from the action of the sun upon the skin. Heat, especially when united with putrid exhalations that copiously impregnate the atmosphere in warm and uncultivated regions, relaxes the nervous system. The bile in consequence is augmented, and shed through the whole mass of the body. This liquor tinges the complexion of a yellow colour, which assumes by time a darker hue. In many other instances, we see that relaxation,

* If the force of fire be sufficient at a given distance to scorch the fuel, approach it as much nearer as is proportional to the difference of heat between our climate and that of Africa, and it will burn it black.

whether it be caused by the vapours of stagnant waters, or by sedentary occupations, or by loss of blood, or by indolence, subjects men to disorders of the bile, and discolours the skin. It has been proved by physicians, that in fervid climates the bile is always augmented in proportion to the heat*. Bile exposed to the sun and air, is known to change its colour to black—black is therefore the tropical hue. Men who remove from northern to southern regions are usually attacked by dangerous disorders that leave the blood impoverished, and shed a yellow appearance over the skin. These disorders are perhaps the efforts of nature in breaking down and changing the constitution, in order to accommodate it to the climate; or to give it that degree of relaxation, and to mingle with it that proportion of bile, which is necessary for its new situation†. On this dark ground the hue of the climate be-

* See Dr M'Clurg on the bile.

† Physicians differ in their opinions concerning the state of the bile in warm countries. Some sup-

comes, at length, deeply and permanently impressed.

On the subject of the physical causes of colour, I shall reduce my principles to a few short propositions, derived chiefly from experience and observation, and placed in such connection as to illustrate and support one another. They may be enlarged and multiplied by men of leisure and talents who are disposed to pursue the inquiry farther.

1. It is a fact, that the sun darkens the skin, although there be no uncommon redundancy of the bile.

pose that it is thrown out to be a corrector of putridity. Others suppose, that in all relaxed habits, the bile is itself in a putrid state. I decide not among the opinions of physicians. Whichever be true, the theory I advance will be equally just. The bile will be augmented; it will tinge the skin; and there, whether in a sound or putrid state, will receive the action of the sun and atmosphere, and be, in proportion, changed towards black.

2. It is also a fact, that redundancy of bile darkens the skin, although there be no uncommon exposure to the sun*.

3. It is a fact equally certain, that where both causes co-operate, the effect is much greater, and the colour much deeper†.

4. It is discovered by anatomists, that the skin consists of three lamellæ, or folds:—the external, which in all nations is an extremely fine and transparent integument;—the interior, which is also white;—and an intermediate, which is a cellular membrane filled with a mucous substance.

5. This substance, whatever it be, is altered in its appearance and colour with every change in the constitution—As ap-

* Redundancy of bile long continued, as in the case of the black jaundice, or of extreme melancholy, creates a colour almost perfectly black.

† This we see verified in those persons who have been long subject to bilious disorders, if they have been much exposed to the sun. Their complexion becomes in that case extremely dark.

pears in blushing, in fevers, or in consequence of exercise. A lax nerve, that does not propel the blood with vigour, leaves it pale and fallow—it is instantly affected with the smallest surcharge of bile, and stained of a yellow colour.

6. The change of climate produces a proportionable alteration in the internal state and structure of the body, and in the quantity of the secretions*. In southern climates particularly, the bile, as has been remarked, is always augmented.

7. Bile, exposed to the sun and air in a stagnant, or nearly in a stagnant state, tends in its colour towards black.

8. The secretions, as they approach the

* This appears from the disorders with which men are usually attacked on changing their climate; and from the difference of figure and aspect which takes place in consequence of such removals. This latter reflection will afterwards be further illustrated.

extremities, become more languid in their motion, till at length they come almost to a fixed state in the skin.

9. The aqueous parts escaping easily by perspiration through the pores of the skin, those that are more dense and incrassated remain in a mucous or glutinous state in that cellular membrane between the interior skin and the scarf, and receive there, during a long time, the impressions of external and discolouring causes.

10. The bile is peculiarly liable to become mucous and incrassated*; and in this state, being unfit for perspiration, and attaching itself strongly to that spongy tissue of nerves, it is there detained for a length of time, till it receives the repeated action of the sun and atmosphere.

11. From all the preceding principles taken together, it appears that the com-

* In this state it is always copiously found in the stomach and intestines, at least in consequence of a bilious habit of body.

plexion in any climate will be changed towards black, in proportion to the degree of heat in the atmosphere, and to the quantity of bile in the skin.

12. The vapours of stagnant waters with which uncultivated regions abound; all great fatigues and hardships; poverty and nastiness; tend, as well as heat, to augment the bile. Hence, no less than from their nakedness, savages will always be discoloured, even in cold climates. For though cold, when assisted by succulent nourishment, and by the comfortable lodging and clothing furnished in civilized society, propels the blood with force to the extremities, and clears the complexion; yet when hardships and bad living relax the system, and when poor and shivering savages, under the arctic cold, do not possess those conveniences that, by opening the pores and cherishing the body, assist the motion of the blood to the surface, the florid and sanguine principle is repelled, and the complexion is left to be formed

by the dark coloured bile; which, in that case, becomes the more dark, because the obstruction of the pores preserves it longer in a fixed state in the skin. Hence, perhaps, the deep Lapponian complexion, which has been esteemed a phenomenon so difficult to be explained.

13. Cold, where it is not extreme*, is followed by a contrary effect. It corrects the bile, it braces the constitution, it propels the blood to the surface of the body with vigour, and renders the complexion clear and florid†.

* Extreme cold is followed by an effect similar to that of extreme heat. It relaxes the constitution by overstraining it, and augments the bile. This, together with the fatigues and hardships and other evils of savage life, renders the complexion darker beneath the arctic circle, than it is in the middle regions of the temperate zone even in a savage state of society.

† Cold air contains a considerable quantity of nitre; and this ingredient is known to be favourable to a clear and ruddy complexion.—*The accurate chemistry of the present age has taught us, that the ancient and vulgar opinion that air contains NITRE,*

Such are the observations which I propose concerning the proximate cause of colour in the human species. But I remark, with pleasure, that whether this theory be well founded or not, the fact may be perfectly ascertained, that climate has all that power to change the complexion which I suppose, and which is necessary to the present subject.—It appears from the whole state of the world—it appears from obvious and undeniable events within the memory of history, and from events even within our own view.

Encircle the earth in every zone, and making those reasonable allowances which have been already suggested, and which will afterwards be farther explained, you

is founded merely in theory and in ignorance.—The “clear and florid” complexion, therefore, is not to be attributed to any nitrous principle contained in, but solely to the stimulus of, cold air. The effect of nitre on the inanimate muscular fibre is well known; but, it is to be presumed that its effect on the complexion of the living body would, even in large quantities, be very inconsiderable.

EDITOR.

will see every zone marked by its distinct and characteristical colour. The black prevails under the equator; under the tropics, the dark copper; and on this side of the tropic of Cancer, to the seventieth degree of north latitude, you successively discern the olive, the brown, the fair, and the sanguine complexion. Of each of these there are several tints or shades. And under the arctic circle, you return again to the dark hue. This general uniformity in the effect indicates an influence in the climate, that, under the same circumstances, will always operate in the same manner. The apparent deviations from the law of climate that exist in different regions of the globe will be found to confirm it, when I come, in the progress of this discourse, to point out their causes*.

The power of climate, I have said, appears from obvious and undeniable events

* Independently on the effects of the state of society which will be hereafter illustrated, there are, in reality, various climates under the same parallels.

within the memory of history. From the Baltic to the Mediterranean you trace the different latitudes by various shades of colour. From the same, or from nearly resembling nations, are derived the fair German, the dark Frenchman, the swarthy Spaniard and Sicilian. The south of Spain is distinguished by complexion from the north. The same observation may be applied to most of the other countries of Europe. And if we would extend it beyond Europe to the great nations of the east, it is applicable to Turkey, to Arabia, to Persia, and to China. The people of Pekin are fair; at Canton they are nearly black. The Persians near the Caspian sea are among the fairest people in the world*; near the gulph of Ormus they are of a dark olive. The inhabitants of the Stony and Desert Arabia are tawny; while those of Arabia the Happy are as black as the Ethiopians. In these ancient nations, colour holds a regular progression with the lati-

* The *fair Circassian* has become proverbial of the women of a neighbouring nation.

titude from the equator. The examples of the Chinese and the Arabians are the more decisive on this subject, because they are known to have continued, from the remotest antiquity, unmingled with other nations. The latter, in particular, can be traced up to their origin from one family. But no example can carry with it greater force on this subject than that of the Jews. Descended from one stock, prohibited by their most sacred institutions from intermarrying with other nations, and yet dispersed, according to the divine predictions, into every country on the globe, this one people is marked with the colours of all. Fair in Britain and Germany, brown in France and in Turkey, swarthy in Portugal and in Spain, olive in Syria and in Chaldea, tawny or copper coloured in Arabia and in Egypt*.

Another example of the power of climate, more immediately subject to our own view, may be shown in the inhabitants of

* Buffon's Nat. Hist. Vol. III.

these United States. Sprung within a few years from the British, the Irish, and the German nations, who are the fairest people in Europe, they are now spread over this continent from the thirty-first to the forty-fifth degree of northern latitude. And, notwithstanding the temperature of the climate—notwithstanding the shortness of the period since their first establishment in America—notwithstanding the continual mixture of Europeans with those born in the country—notwithstanding previous ideas of beauty that prompted them to guard against the influence of the climate—and notwithstanding the state of high civilization in which they took possession of their new habitations, they have already suffered a visible change. A certain countenance of paleness and of softness strikes a traveller from Britain the moment he arrives upon our shore. A degree of sallowness is visible to him, which, through familiarity, or the want of a general standard of comparison, hardly attracts our observation. This effect is more obvious

in the middle, and still more in the southern, than in the northern states. It is more observable in the low lands near the ocean, than as you approach the Apalachian mountains; and more in the lower and labouring classes of people, than in families of easy fortune, who possess the means and the inclination to protect their complexion: The inhabitants of New-Jersey, below the falls of the rivers, are somewhat darker in their colour than the people of Pennsylvania; both because the land is lower in its situation, and because it is covered with a greater quantity of stagnant water: A more southern latitude augments the colour along the shores of Maryland and Virginia. At length the low lands of the Carolinas and of Georgia degenerate to a complexion that is but a few shades lighter than that of the Iroquois. I speak of the poor and labouring classes of the people, who are always first and most deeply affected by the influence of climate, and who eventually give the national complexion to every country. The change of

complexion which has already passed upon these people is not easily imagined by an inhabitant of Britain, and furnishes the clearest evidence to an attentive observer of nature, that, if they were thrown, like the native Indians, into a savage state, they would be perfectly marked, in time, with the same colour*. Not only their com-

* In support of our author's observation, we may mention the inhabitants of the western frontiers of the United States. These people are, in general, in a state of society nearly as rude as that of the Indians. Indolence, and an unbounded love of liberty, are the most striking features of their character. They are almost entire strangers to agriculture, and subsist chiefly by hunting. This mode of subsistence has imprinted on them, not only the MANNERS, but even the COMPLEXION and the FEATURES of their savage neighbours. It is also worthy of observation, that those Europeans, and others, who have intermixed with the Indians, and have embraced their manners and mode of living, are more especially observed to partake of their appearance. "At the Shawano main-camp," says Mr Adair, "I saw a Pennsylvanian, a white man by birth, and in profession a Christian, who, by the inclemency of the sun, and his endeavours of improving the red colour, was tarnished with as deep an Indian hue, as any of

plexion, but their whole constitution, seems to be changed. So thin and meagre is the habit of the poor, and of the overseers of their slaves, that, frequently, their limbs appear to have a disproportioned length to the body, and the shape of the skeleton is evidently discernible through the skin*.

“ the camp, though he had been in the woods
 “ only the space of four years.” (*The History of the
 American Indians, &c.* p. 3. 4.) If, then, these remarkable changes are wrought on the system, in the term of a few years, we ought not to be surpris’d at seeing even the most opposite tints and features produced from the long and permanent operation of
 PHYSICAL and of MORAL causes. EDITOR.

* The dark colour of the natives of the West-India Islands is well known to approach very near a dark copper. The descendents of the Spaniards in South America are already become copper-coloured: (See *Phil. Transf. of Roy. Soc. Lond.* N^o 476. Sect. 4.) The Portuguese of Mitomba in Sierra Leona on the coast of Africa have, by intermarrying with the natives, and by adopting their manners, become; in a few generations, perfectly assimilated in aspect, figure, and complexion: (See *Treatise on the Trade of Great Britain to Africa, by an African merchant.*) And Lord Kames, who cannot be suspected of partiality

If these men had been found in a distant region where no memory of their origin remained, the philosophers who espouse the hypothesis of different species of men would have produced them in proof, as they have often done nations distinguished by smaller differences than distinguish these from their European ancestors*. Examples ta-

on this subject, says of another Portuguese settlement on the coast of Congo, that the descendents of those polished Europeans, have become, both in their persons and their manners, more like beasts than like men. (See *Sketches of Man*, prel. disc.) These examples tend to strengthen the inference drawn from the changes that have happened in the Anglo-Americans. And they show how easily climate would assimilate foreigners to natives in the course of time, if they would adopt the same manners, and equally expose themselves to its influence.

* The habit of America is, in general, more slender than that of Britain. But the extremely meagre aspect of the poorest and lowest class of people in some of the southern states may arise from the following cause: That the changes produced by climate are, in the first instance, generally diseases. Hereafter, when the constitution shall be perfectly accommoda-

ken from the natives of the United States are the stronger, because climate has not had time to impress upon them its full character. And the change has been retarded by the arts of society, and by the continual intermixture of foreign nations.

These changes may, to persons who think superficially on the subject, seem more slow in their progress than is consistent with the principles hitherto laid down concerning the influence of climate. But in the philosophy of human nature, it is worthy of observation, that all na-

ted to the climate, it will by degrees assume a more regular and agreeable figure. The Anglo-Americans, however, will never resemble the native Indians. Civilization will prevent so great a degeneracy either in the colour or the features. Even if they were thrown back again into the savage state, the resemblance would not be complete; because the one would receive the impressions of the climate on the ground of features formed in Europe;—the others have received them on the ground of features formed in a very different region of the globe. The effects of such various combinations can never be the same.

tional changes, whether moral or physical, advance by imperceptible gradations, and are not accomplished but in a series of ages. Ten centuries were requisite to polish the manners of Europe. It is not improbable that an equal space of time may be necessary to form the countenance, and the figure of the body;—to receive all the insensible and infinite impressions of climate;—to combine these with the effects that result from the state of society;—to blend both along with personal peculiarities;—and, by the innumerable unions of families, to melt down the whole into one uniform and national countenance*. It is even questionable, whether, amidst eternal migrations and conquests, any nation in Europe has yet received the full effects

* In savage life, men more speedily receive the characteristic features of the climate, and of the state of society: because the habits and ideas of society among them are few and simple; and to the action of the climate they are exposed naked and defenceless to suffer its full force at once.

of these causes. China and Arabia are, perhaps, the only civilized countries in the world, in which they have attained their utmost operation; because they are the only countries in which the people have been able, during a long succession of ages, to preserve themselves unmixed with other nations. Each parallel of latitude is, among them, distinctly marked by its peculiar complexion. In no other nations is there such a regular and perfect gradation of colour as is traced from the fair natives of Pekin, to Canton, whose inhabitants are of the darkest copper;—or, from the olive of the Desert Arabia, to the deep black of the province of Yemen. It is plain then, that the causes of colour, and of other varieties in the human species, have not yet had their full operation on the inhabitants of these United States. Such an operation, however, they have already had, as affords a strong proof, and an interesting example, of the powerful influence of climate*.

* The reader will please to keep in mind, that in

The preceding observations have been intended chiefly to explain the principle of colour. I proceed now to illustrate the influence of climate on other varieties of the human body.

remarking on the changes that have passed on the Anglo-Americans, I have in view the mass of the people: and that I have in view; likewise, natives of the second or third generation; and not such as are sprung from parents, one or both of whom have been born in Europe; though even with regard to these the remarks will be found to hold in a great degree. I am aware that particular instances may be adduced that will seem to contradict each remark. But such examples do not overthrow general conclusions derived from the body of the populace. And these instances, I am persuaded, will be very rare among those who have had a clear American descent by both parents, for two or three generations. They will be more rare in the low and level country, where the climate is more different, and the descents more remote from Europe, than in the countries to the west where the land rises into hills. Here the climate is more similar to that in the middle of Europe, and the people are more mingled with emigrants from Ireland and Germany.

It would be impossible, in the compass of a discourse like the present, to enter minutely into the description of every feature of the countenance, and of every limb of the body, and to explain all the changes in each that may possibly be produced by the power of climate combined with other accidental causes. Our knowledge of the human constitution, or of the globe, or of the powers of nature, is, perhaps, not sufficiently accurate and extensive to enable us to offer a satisfactory solution of every difficulty that an attentive or a captious observer might propose. But if we are able, on just principles, to explain the capital varieties, in figure and aspect, that exist among different nations, it ought to satisfy a reasonable inquirer; as no minuter differences can be sufficient to constitute a distinct species.

I shall, therefore, confine my observations, at present, to those conspicuous varieties that appear in the hair, the figure of the head, the size of the limbs, and in the principal features of the face,

The hair generally follows the law of the complexion; because its roots, being planted in the skin, derive its nourishment and its colour from the same substance which there contributes to form the complexion. Every gradation of colour in the skin, from the brown to the perfectly black, is accompanied with proportionable shades in the hair. The pale red, or sandy complexion, on the other hand, is usually attended with redness of the hair. Between these two points is found almost every other colour of this excrescence arising from the accidental mixture of the principles of black and red in different proportions. White hair, which is found only with the fairest skin, seems to be the middle of the extremes, and the ground in which they both are blended*. The extremes, if I may speak so, are as near to each other as to any point in the circle,

* That black hair is sometimes supposed to be united with the fairest skin, arises from the deception which the contrast between the hair and skin puts upon the sight.

and are often found to run into one another. The Highlanders of Scotland are generally either black or red. A red beard is frequently united with black hair. And if, in a red or dark coloured family, a child happens to deviate from the law of the house, it is commonly to the opposite extreme. On this observation permit me to remark, that those who deny the identity of human origin, because one nation is red and another is black, might, on the same principle, deny, to persons of different complexion, the identity of family. But as the fact, in the latter instance, is certain, we may, in the former, reasonably conclude, that the state of nerves or fluids which contributes to produce one or other of these effects in a single family, may be the general tendency of a particular climate. In this example, at least, we see that the human constitution is capable of being moulded, by physical causes, into many of the varieties that distinguish mankind. It is contrary therefore to sound philosophy, which never assigns different

causes, without necessity, for similar events, to have recourse, for explaining these varieties, to the hypothesis of several original species*.

Climate possesses great and evident influence on the hair, not only of men, but of all other animals. The changes which this excrescence undergoes in them is at least equal to what it suffers in man. If,

* If we suppose different species to have been created, how shall we determine their number? Are any of them lost? or where shall we at present find them clearly distinguished from all others? or were the species of men made capable of being blended together, contrary to the nature of other animals, so that they can never be discriminated, proving, thereby, that these diversities were unnecessary to the end for which they are supposed to be created? If we have reason, from the varieties that exist in the same family, or in the same nation, to conclude that the Danes, the French, the Turks, and people even more remote, are of one species; have we not the same reason to conclude, that the nations beyond them, and who do not differ from the last by more conspicuous distinctions, than the last differ from the first, are also of the same species? By pursuing this progression, we shall find but one species from the equator to the pole.

in one case, these transmutations are acknowledged to be consistent with identity of kind, they ought not, in the other, to be esteemed criterions of distinct species. Nature hath adapted the pliancy of her work to the situations in which she may require it to be placed. The beaver, removed to the warm latitudes, exchanges its fur, and the sheep its wool, for a coarse hair that preserves the animal in a more moderate temperature. The coarse and black shag of the bear is converted, in the arctic regions, into the finest and whitest fur. The horse, the deer, and almost every animal protected by hair, doubles his coat in the beginning of winter, and sheds it in the spring when it is no longer useful. The fineness and density of the hair is augmented in proportion to the latitude of the country. The Canadian and Russian furs are, therefore, better than the furs of climates farther south. The colour of the hair is likewise changed by climate. The bear is *white* under the arctic circle; and in high northern latitudes, *black* foxes are most frequently found. Similar effects of

climate are discernible on mankind. Almost every nation is distinguished by some peculiar quality of this excrescence. The hair of the Danes is generally red, of the English fair or brown, and of the French commonly black. The Highlanders of Scotland are divided between red and black. Red hair is frequently found in the cold and elevated regions of the Alps, although black be the predominant complexion at the foot of those mountains. The aborigines of America, like all people of colour, have black hair; and it is generally long and straight. The straightness of the hair may arise from the relaxation of the climate, or from the humidity of an uncultivated region †. But whatever be

† THIS *straightness* of the hair of the American Indians may, we think, be easily accounted for without supposing (and it certainly would be, at best, a gratuitous supposition) that the climate of the New World is either more *relaxing* or more *humid* than that of many, and those extensive, regions of the other hemisphere. Indeed, as this condition of the hair is as observable among the Indians of the Floridas and of other fervid parts of America, as among those who dwell to the

the cause, the Anglo-Americans already feel its influence. And curled locks so frequent among their ancestors are rare in the United States*.

north, where the climate is certainly more *humid*, it would be unphilosophical to attempt an explanation of the fact from the influence of this state of the climate. The custom of *anointing* the hair, which is universal among the tribes of America, is, of itself, sufficient to account for the fact; especially as we find among almost all the northern Asiatics (among whom this practice also prevails) the same straightness of hair. But still if it is true that the hair of the Anglo-American is less susceptible of the *curl* than that of his ancestor, we must call in to our aid some other cause to explain the phenomenon. At present, however, we are incapable of ascertaining this cause; we will, therefore, rather confess our ignorance than attempt to amuse by a fanciful conjecture. EDITOR.

* They are most rare in the southern states, and in those families that are farthest descended from their European origin. Straight lank hair is almost a general characteristic of the Americans of the second and third race. It is impossible, however, to predict what effect hereafter the clearing of the country and the progress of cultivation may have on the hair as well as other qualities of the Americans:

Black is the most usual colour of the human hair; because those climates that are most extensive, and most favourable to population, tend to the dark complexion. Climates that are not naturally marked by a peculiar colour, may owe the accidental predominancy of one to the constitutional qualities of an ancestral family.—They may owe the prevalence of a variety of colours to the early settlement of different families; or to the migrations or conquests of different nations. England is, perhaps for this reason, the country in which is seen the greatest variety in the colour of the hair.

But the form of this excrescence which principally merits observation, because it seems to be farthest removed from the ordinary laws of nature, is seen in that sparse and curled substance peculiar to a part of Africa, and to a few of the Asiatic islands.

They will necessarily produce a great change in the climate, and consequently in the human constitution.

This peculiarity has been urged as a decisive character of a distinct species with more assurance than became philosophers but tolerably acquainted with the operations of nature. The sparseness of the African hair is analogous to the effect which a warm climate has been shown to have on other animals. Cold, by obstructing the perspiration, tends to throw out the perspirable matter accumulated at the skin in an additional coat of hair. A warm climate, by opening the pores, evaporates this matter before it can be concreted into the substance of hair; and the laxness and aperture of the pores render the hair liable to be easily eradicated by innumerable accidents.

Its curl may result in part, perhaps, from external heat, and in part from the nature of the substance or secretion by which it is nourished. That it depends in a degree on the quality of the secretion, is rendered probable from its appearance on the chin, and on other parts of the hu-

man body. Climate is as much distinguished by the nature and proportion of the secretions as by the degree of heat. Whatever be the nutriment of the hair, it seems to be combined in the torrid zone of Africa with some fluid of a highly volatile or ardent quality. That it is combined with a strong volatile salt, the rank and offensive smell of many African nations gives us reason to suspect. Saline secretions tend to curl and to burn the hair. The evaporation of any volatile spirit would render its surface dry and disposed to contract; while the center continuing distended by the vital motion, these opposite dilatations and contractions would necessarily produce a curve, and make the hair grow involved. This conjecture receives some confirmation by observing, that the negroes born in the United States of America are gradually losing the strong smell of the African zone; their hair is, at the same time, growing less involved, and becoming denser and longer*.

* Many negroes of the third race in America have

External and violent heat parching the extremities of the hair tends likewise to involve it. A hair held near the fire instantly coils itself up. The herbs roll up their leaves, in the extreme heats of summer, during the day, and expand them again in the coolness of the evening. Africa is the hottest country on the globe. The ancients who frequented the Asiatic zone esteemed the African an uninhabitable zone of fire. The hair as well as the whole human constitution suffers, in this region, the effects of an intense heat.

thick close hair, extended to four or five inches in length. In some who take great pains to comb and dress it in oil, it is even longer, and they are able to extend it into a short queue*. This is particularly the case with some domestic servants who have more leisure and better means than others to cherish their hair. Many negroes, however, cut their hair as fast as it grows, preferring it short.

** The fact here mentioned by the author affords additional evidence to our idea, that the straightness of the hair of the aboriginal American, and of the northern Asiatic, is occasioned by the practice, of constantly anointing their heads.*

EDITOR.

The manners of the people add to the influence of the climate. Being savages they have few arts to protect them from its intensity. The heat and serenity of the sky preserving the life of children without much care of the parent, they seem to be the most negligent people of their offspring in the universe*. Able themselves to endure the extremes of that ardent climate, they inure their children from their most tender age. They suffer them to lie in the ashes of their huts, or to roll in the dust and sand beneath the direct rays of a burning sun. The mother, if she is engaged, lays down the infant on the first spot she finds, and is seldom at the pains to seek the miserable

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* The manners of a people are formed, in a great measure, by their necessities. The dangers of the North-American climate render the natives uncommonly attentive to the preservation of their children. The African climate not laying its savage inhabitants under any necessity to be careful, they expose their children to its utmost influence without concern.

shelter of a barren shrub, which is all that the interior country affords. Thus the hair is crisped, while the complexion is blackened by excessive heat †. There is

† I have myself been witness of this treatment of children by the slaves in the southern states, where they are numerous enough to retain many of their African customs. I speak of the field slaves who, living in little villages on their plantations, at a distance from their masters mansions, are slow in adopting the manners of their superiors. There I have seen the mother of a child, within less than six weeks after it was born, take it with her to the field, and lay it in the sand, beneath a hot sun, while she hoed her corn-row down and up. She would then suckle it a few minutes and return to her work, leaving the child in the same exposure, although she might have gained, within a few yards, a convenient shade. Struck at first with the apparent barbarity of this treatment, I have remonstrated with them on the subject, and was uniformly told, that dry sand and a hot sun, were never found to hurt them. This treatment tends to add to the injury that the climate does to the hair. A similar negligence among the poor, who suffer their children to lie in ashes, or on the naked ground, and who expose them, without covering for their heads, to the sun and wind, we find greatly injures their hair. We rarely see persons

probably a concurrence of both the preceding causes in the production of the effect. The influence of heat either external, or internal, or of both, in giving the form to the hair of the Africans, appears, not only from its sparseness and its curl, but, from its colour. It is not of a shining, but an adust black, and its extremities tend to brown as if it had been scorched by the fire.

Having treated so largely on the form of this excrescence in that country where it deviates farthest from the common law of the species; I proceed to consider a few of the remaining varieties among mankind.

The whole of the Tartar race are of low stature—Their heads have a disproportion-

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E 2

who have been bred in extreme poverty, who have it not short, and thin, and frittered. But the heat of the sand and of the sun in Africa must have a much more powerful effect.

tioned magnitude to the rest of the body—Their shoulders are raised, and their necks are short—Their eyes are small, and appear by the jutting of the eyebrows over them, to be sunk in the head—The nose is short, and rises but little from the face—The cheek is elevated and spread out on the sides—The whole features are remarkably coarse and deformed. And all these peculiarities are aggravated, as you proceed towards the pole, in the Lapponian, Borandian and Samoiede races, which, as Buffon justly remarks, are Tartars reduced to the last degree of degeneracy.—A race of men resembling the Laplanders we find in a similar climate in America. The frozen countries round Hudson's bay are, except Siberia, the coldest in the world. And here the inhabitants are between four and five feet in height—Their heads are large—Their eyes are little and weak—And their hands, feet, and whole limbs uncommonly small*.

* The ESQUIMAUX is the variety of our species

These effects naturally result from extreme cold. Cold contracts the nerves, as it does all solid bodies. The inhabitants grow under the constriction of continual frost as under the forcible compression of some powerful machine. Men will therefore be found in the highest latitudes, for ever small and of low stature*. The

E 3

to which the author here alludes. This wretched and diminutive race of men, who may be ranked among the degeneracies of nature, appear to be evidently of the same stock with the Laplanders, the Greenlanders, and some other northern nations. Mr Hearne has traced them as far to the north as the latitude of 72° ; and it seems very probable, that in these high and frozen regions they have subsisted from a very remote æra. They have, however, been discovered in climates more genial; as in the islands between the continents of Asia and America; and at Norton's Sound, Oonalashka, and Prince William's Sound.

EDITOR.

* A moderate degree of cold is necessary to give force and tone to the nerves, and to raise the human body to its largest size. But extreme cold overstrains and contracts them. Therefore these northern tribes are not only small, but weak and timid.

excessive * rigors of these frozen regions affect chiefly the extremities. The blood

* That CLIMATE has some influence on the STATURE of mankind no one who is in the least accustomed to observe the operations of nature can dispute. Yet we presume that the diminutive stature of the Esquimaux, and of some other northern tribes, both of the old and of the new hemisphere, cannot be attributed entirely, nor perhaps chiefly, to the operation of the climate in which they pass their miserable existence. The Tschutski, though they inhabit some of the highest latitudes of Asia, are among the tallest and best made men of that continent,—or indeed of any other part of the world, hitherto discovered;—and, if we take a survey of mankind in all the intermediate latitudes from the highest to the lowest, we shall find them (the Esquimaux and a few other nations only excepted) deviating but little from one general standard of stature:—The Hottentot at the southern promontory of Africa is as tall as the northern native of the same continent;—little difference is observed between the northern and the southern Asiatic, or between the European or the American in these different situations.

It is not, then, climate so much as the STATE of SOCIETY which effects a difference in the stature of mankind: Those nations who are the most diminutive in stature will, generally, be found the most rude

circulating to them with a more languid and feeble motion has not sufficient vigour to resist the impressions of the cold. These limbs consequently suffer a greater contraction and diminution than the rest of the body. But the blood flowing with warmth and force to the breast and head, and perhaps with the more force, that its course to the extremities is obstructed, distends these parts to a disproportionate size. There is a regular gradation in the effect of the climate, and in the figure of the people from the Tartars to the tribes

E 4

in manners. The Esquimaux inhabits one of the most steril regions of the earth, a region to which nature seems to have denied even the common necessities of life. This wretched man has done nothing to improve his wretched condition;—he is content *merely* to exist on a few of the vegetables which his country produces; and on the flesh of the seal, and the oil of the whale. Such food his system is incapable of assimilating, or forming into nutritious juices, debility and disease consequently ensue, and the growth of the body advances but slowly.

EDITOR,

round Hudson's bay. The Tartars are taller and thicker than the Laplanders or the Samoiedes, because their climate is less severe. The northern Americans are the most diminutive of all, their extremities are the smallest, and their breast and head of the most disproportioned magnitude; because, inhabiting a climate equally severe with the Samoiedes, they are reduced to a more savage state of society*.

Extreme cold likewise tends to form

* The neighbourhood of the Russians, of the Chinese, and even of the Tartars who have adopted many improvements from the civilized nations that border upon them, give the Laplanders and Siberians considerable advantages over the northern Americans who are in the most abject state of savage life, and totally destitute of every art either for convenience or protection. The principles stated above apply to all these nations in proportion to the degree of cold combined with the degree of savageness. The inhabitants of the northern civilized countries of Europe are generally of lower stature than those in the middle regions. But civilization and a milder climate prevent them from degenerating equally with the northern Asiatics and Americans.

the next peculiarities of these races, their high shoulders, and their short necks. Severe frost prompts men to raise their shoulders as if to protect the neck, and to cherish the warmth of the blood that flows to the head. And the habits of an eternal winter will fix them in that position.—The neck will appear shortened beyond its due proportion, not only because it suffers an equal contraction with the other parts of the body; but because the head and breast being increased to a disproportioned size, will encroach upon its length; and the natural elevation of the shoulders will bury what remains so deep as to give the head an appearance of resting upon them for its support. That these peculiarities are the effect of climate*, the examples produced by French

* As climate is often known peculiarly to affect certain parts of the body, philosophy, if it were necessary, could find no more difficulty in accounting for the short necks of the Tartars, and other northern tribes, as a disease of the climate, than she finds in giving the same account for the thick necks so fre-

missionaries in China, of most respectable characters, leave us no room to doubt, who assure us that they have seen, even in the forty-eighth degree of northern latitude, the posterity of Chinese families who had become perfect Tartars in their figure and aspect; and who were distinguished, in particular, by the same shortness of the neck, and by the same elevation of the shoulders*.

That coarse and deformed features are the necessary production of the climate cannot have escaped the attention of the most incurious observer. Let us attend to the effects of extreme cold. It contracts the aperture of the eyes; it draws down the brows; it raises the cheek; by the

quently found in the regions of the Alps. But the observations before made will probably convince the attentive reader that there is no need to resort to such a solution of the phenomenon, when it seems so easily to be explained by the known operation of natural causes.

* See Recueil 24 des lettres edifiantes.

pressure of the under jaw against the upper it diminishes the face in length and spreads it out at the sides ; and distorts the shape of every feature.

This, which is only a transient impression in our climate, soon effaced by the conveniences of society, and by the changes of the season, becomes a heightened and permanent effect in those extreme regions, arising from the greater intensity, and the constant action of the cause. The naked and defenceless condition of the people augments its violence ; and beginning its operation from infancy when the features are most tender and susceptible of impression, and continuing it, without remission, till they have attained their utmost growth, they become fixed at length in the point of greatest deformity, and form the character of the Hudson or Siberian countenance.

The principal peculiarities that may require a farther illustration are the small-

ness of the nose, and depression of the middle of the face; the prominence of the forehead, and the extreme weakness of the eyes.

The middle of the face is that part which is most exposed to the cold, and consequently suffers most from its power of contraction. It first meets the wind, and it is farthest removed from the seat of warmth in the head. But a circumstance of equal, or, perhaps, of greater importance on this subject, is that the inhabitants of frozen climates naturally drawing their breath more through the nose, than through the mouth*, thereby direct the greatest impulse of the air on that feature, and the parts adjacent. Such a continual stream of air augments the cold, and

* A frosty air inhaled by the mouth chills the body more than when it is received by the nostrils; probably because a greater quantity enters at a time. Nature therefore prompts men to keep the mouth closed during the prevalence of intense frost.

by increasing the contraction of the parts, restrains the freedom of their growth*.

Hence, likewise, will arise an easy solution of the next peculiarity, the prominence of the forehead. The superior warmth and force of life in the brain that fills the upper part of the head, will naturally increase its size, and make it overhang the contracted parts below.

Lastly, the eyes in these rigorous climates are singularly affected: By the projection of the eye-brows, they appear to be sunk into the head; the cold naturally diminishes their aperture; and the intensity of the frost concurring with the glare of eternal snows, so overstrains these tender organs, that they are always weak,

* On the same principle the mercury in a thermometer may be contracted and sunk into the bulb, by directing upon it a constant stream of air from a pair of bellows, if the bulb be frequently touched during the operation with any fluid that by a speedy evaporation tends to increase the cold.

and the inhabitants are often liable to blindness at an early age.

In the temperate zone on the other hand, and in a point rather below than above the middle region of temperature; the agreeable warmth of the air disposing the nerves to the most free and easy expansion, will open the features and increase the orb of the eye*. Here a large full eye, being the tendency of nature, will grow to be esteemed a perfection. And in the strain of Horner, *βωπις πολὺν ἥπην* would convey to a Greek an idea of divine beauty that is hardly intelligible to an inhabi-

* It is perhaps worthy of remark, that, in the three continents, the temperate climates, and eternal cold, border so nearly upon one another, that we pass almost instantly from the former to the latter. And we find the Laplander, the Samoiede, the Mongou, and the tribes round Hudson's bay in the neighbourhood of the Swede, the Russian, the Chinese, and the Canadian. Without attention to this remark, hasty reasoners will make the sudden change of features in these nations an objection against the preceding philosophy.

tant of the north of Europe. All the principles of the human constitution unfolding themselves freely in such a region, and nature acting without constraint will be there seen most nearly in that perfection which was the original design and idea of the Creator †.

II. Having endeavoured to ascertain the power of climate in producing many varieties in the human species, I proceed to illustrate the influence of the state of society.

On this subject I observe,

I. In the first place, that the effect of cli-

† It may perhaps gratify my countrymen to reflect that the United States occupy those latitudes that have ever been most favourable to the beauty of the human form. When time shall have accommodated the constitution to its new state, and cultivation shall have meliorated the climate, the beauties of Greece and Circassia may be renewed in America; as there are not a few already who rival those of any other quarter of the globe.

mate is augmented by a savage state, and corrected by a state of civilization. And

2. In the next place, that by the state of society many varieties in the human person are entirely formed.

In the first place, the effect of climate is augmented by a savage state of society and corrected by a state of civilization.

A naked savage, seldom enjoying the protection of a miserable hut, and compelled to lodge on the bare ground and under the open sky, imbibes the influence of the sun and atmosphere at every pore. He inhabits an uncultivated region filled with stagnant waters, and covered with putrid vegetables that fall down and corrupt on the spot where they have grown. He pitches his wigwam on the side of a river, that he may enjoy the convenience of fishing as well as of hunting. The vapour of rivers, the exhalations of marshes, and the noxious effluvia of decaying vegetables, fill the whole atmosphere in an unimproved

country, and tend to give a dark and bilious hue to the complexion*. And the sun acting immediately on the skin in this state will necessarily impress a deep colour.

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* The forests in uncultivated countries absorb a great part of these putrid vapours, otherwise they would be contagious and mortal. But as nature never makes her work perfect, but leaves the completion of her schemes to exercise the industry and wisdom of man, the growing vegetables do not absorb the whole effluvia of the decaying, and of the noxious marshes that overspread the face of such a region. Nothing but civilization and culture can perfectly purify the atmosphere. Uncultivated as well as warm countries therefore naturally tend to a bilious habit, and a dark complexion. It may seem an objection against this observation, that in America we often find bilious disorders augmented in consequence of cutting down the timber, and extending the plantations. The reason of which probably is, that the indolence or necessities of a new country frequently lead men to clear the ground without draining the marshes; or small plantations are surrounded by unimproved forests. Thus, the vegetables that absorbed the noxious moisture being removed, it is left to fall in greater abundance on man.

This effect is augmented by the practice of painting, to which savages are often obliged to have recourse in order to protect themselves from the impressions of the humid earth on which they lie, or of a noxious atmosphere to which they are exposed without covering. Painting taken up at first through necessity is afterwards employed as an ornament; and a savage is seldom seen without having his skin covered with some composition that spoils the fineness of its texture, and impairs the beauty and clearness of its natural colour. This is known to be the effect of the finest paints and washes that are used for the same purpose in polished society. Much more will it be the effect of those coarse and filthy unguents which are employed by savages. And as we see that coloured marks impressed by punctures in the skin become indelible, it is reasonable to believe that the particles of paints insinuated into its texture by forcible and frequent rubbing will tend, in like manner, to create a dark and permanent colour.

To this may be added, that the frequent fumigations by which they are obliged to guard against the annoyance of innumerable insects in undrained and uncultivated countries ; and the smoke with which their huts, unskilfully built, and without chimneys, are eternally filled, contribute to augment the natural darkness of the savage complexion. Smoke discolours the skin of those labourers and mechanics who are habitually immersed in it—It stains every object long exposed to its action, by entering the pores, and adhering strongly to the surface.—It insinuates itself in a similar manner into the pores of the skin, and there tends to change the complexion, on the same principles that it is changed by inserted paints.

And lastly, the hardships of their condition that weaken and exhaust the principle of life—their scanty and meagre fare which wants the succulence and nourishment which give freshness and vigour to the constitution—the uncertainty of their

provision which sometimes leaves them to languish with want, and sometimes enables them to overstrain themselves by a surfeit—and their entire inattention to personal and domestic cleanliness, all have a prodigious effect to darken the complexion, to relax and emaciate the constitution, and to render the features coarse and deformed. Of the influence of these causes we have an example in persons reduced to extreme poverty, who are usually as much distinguished by their thin habit, their uncouth features, and their swarthy and squalid aspect as by the meanness of their garb. Nakedness, exposure, negligence of appearance, want of cleanliness, bad lodging, and meagre diet, so discolour and injure their form as to enable us to frame some judgment of the degree in which such causes will contribute to augment the influence of climate in savage life. Independently on climate, these causes will render it impossible that a savage should ever be fair. And the co-operation of both, will usually render men in that state

of society extremely dark in their complexion. And generally they will be more coarse and hard in their features and less robust in their persons, than men who enjoy with temperance the advantages of civilized society *.

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* One of the greatest difficulties with which a writer on this subject has to combat, is the ignorance and superficial observation of the bulk of travellers who travel without the true *spirit of remark*. The first objects that meet their view in a new country and among a new people, seize their fancy and are recited with exaggeration. They seldom have judgement and impartiality sufficient to examine and reason with justness and caution; and from innumerable facts which necessarily have many points of difference among themselves, to draw general conclusions. Such conclusions, when most justly drawn, they think they have refuted, when they discover a single example that seems not to coincide with them. In reasonings of this kind there are few persons who sufficiently consider that, however accurately we may investigate causes and effects, our limited knowledge will always leave particular examples that will seem to be exceptions from any general principle.—To apply these remarks.—A few examples, perhaps, may oc-

As a savage state contributes to augment the influence of climate ; or, at least, to

cur, among savages, of regular and agreeable features, or of strong and muscular bodies ; as in civilized society we meet with some rare instances of astonishing beauty. If, by chance, a person of narrow observation, and incomprehensive mind, have seen two or three examples of this kind, he will be ready on this slender foundation, to contradict the general remark, I have made concerning the course and uncouth features of savages, and their want of those fine and muscular proportions, if I may call them so, in the human body, that indicate strength combined with swiftness. Yet, it is certain, that the general countenance of savage life is much more uncouth and coarse, more unmeaning and wild, as will afterwards be seen when I come to point out the causes of it, than the countenance of polished society : And the person is more slender, and rather fitted for the chace, than robust and capable of force and labour.— An American Indian, in particular, is commonly swift ; he is rarely very strong. And it has been remarked, in the many expeditions which the people of these states have undertaken against the savages, that, in close quarters, the strength of an Anglo-American is usually superior to that of an Indian of the same size. The muscles, likewise, on which the fine proportions of person so much depend, are generally smaller and more lax, than they are in improved so-

exhibit its worst effects upon the human constitution ; a state of civilization, on the other hand, tends to correct it, by furnishing innumerable means of guarding against its power. The conveniences of clothing and of lodging—the plenty, and healthful quality of food—a country drained, culti-

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ciety that is not corrupted by luxury, or debilitated by sedentary occupations ;—their limbs, therefore, though straight, are less beautifully turned.—A deception often passes on the senses in judging of the beauty of savages—and description is often more exaggerated than the senses are deceived. We do not expect beauty in savage life. When, therefore, we happen to perceive it, the contrast with the usual condition of that state imposes on the mind. And the exalted representations of savage beauty, which we sometimes read, are true only by comparison with savages.—There is a difference, in this respect between man, and many of the inferior animals which were intended to run wild in the forest. They are always the most beautiful when they enjoy their native liberty and range. They decay and droop when attempted to be domesticated or confined. But man, being designed for society and civilization, attains, in that state, the greatest perfection of his form, as well as of his whole nature.

vated, and freed from noxious effluvia—improved ideas of beauty—the constant study of elegance, and the infinite arts for attaining it, even in personal figure and appearance, give cultivated an immense advantage over savage society in its attempts to counteract the influence of climate, and to beautify the human form.

2. I come now to observe, what is of much more importance on this part of the subject, that all the features of the human countenance are *modified*, and its entire *expression* radically formed, by the state of society.

Every object that impresses the senses, and every emotion that rises in the mind, affects the features of the face the index of our feelings, and contributes to form the infinitely various countenance of man. Paucity of ideas creates a vacant and unmeaning aspect. Agreeable and cultivated scenes compose the features, and render them regular and gay. Wild, and de-

formed, and solitary forests tend to impress on the countenance, an image of their own rudeness. Great varieties are created by diet and modes of living. The delicacies of refined life give a soft and elegant form to the features. Hard fare, and constant exposure to the injuries of the weather, render them coarse and uncouth. The infinite attentions of polished society give variety and expression to the face. The want of interesting emotions leaving its muscles lax and unexerted, they are suffered to distend themselves to a larger and grosser size, and acquire a soft unvarying swell that is not distinctly marked by any idea. A general standard of beauty has its effect in forming the human countenance and figure. Every passion, and mode of thinking has its peculiar expression—And all the preceding characters have again many variations according to their degrees of strength, according to their combinations with other principles, and according to the peculiarities of constitution or of climate that form

the ground on which the different impressions are received. As the degrees of civilization, as the ideas, passions, and objects of society in different countries, and under different forms of government are infinitely various, they open a boundless field for variety in the human countenance. It is impossible to enumerate them.—They are not the same in any two ages of the world.—It would be unnecessary to enumerate them, as my object is not to become a physiognomist, but to evince the possibility of so many differences existing in one species; and to suggest a proper mode of reasoning on new varieties as they may occur to our observation.

For this purpose, I shall, in the first place, endeavour, by several facts and illustrations to evince, that the state of society has a great effect in varying the figure and complexion of mankind.

I shall then shew in what manner some

of the most distinguishing features of the savage, and particularly of the American savage with whom we are best acquainted, naturally result from the rude condition in which they exist.

To evince that the state of society has a great effect in varying the figure and complexion of mankind, I shall derive my first illustration from the several classes of men in polished nations. And then I shall shew that men in different states of society have changed, and that they have it continually in their power to change, in a great degree, the aspect of the species, according to any general ideas or standard of human beauty which they may have adopted.

1. And in the first place, between the several classes of men in polished nations, who may be considered as people in different states of society, we discern great and obvious distinctions, arising from their social habits, ideas and employments.

The poor and labouring part of the community are usually more swarthy and squalid in their complexion, more hard in their features, and more coarse and ill-formed in their limbs, than persons of better fortune, and more liberal means of subsistence. They want the delicate tints of colour, the pleasing regularity of feature, and the elegance and fine proportions of person. There may be particular exceptions. Luxury may disfigure the one—a fortunate coincidence of circumstances may give a happy assemblage of features to the other. But these exceptions do not invalidate the general observation*, Such

* It ought to be kept in mind through the whole of the following illustrations that, when mention is made of the superior beauty and proportions of persons in the higher classes of society, the remark is general. It is not intended to deny that there exist exceptions both of deformity among the great, and of beauty among the poor. And those only are intended to be described who enjoy their fortune with temperance; because luxury and excess tend equally with extreme poverty to debilitate and disfigure the human constitution.

distinctions become more considerable by time, after families have held for ages the same stations in society. They are most conspicuous in those countries in which the laws have made the most complete and permanent division of ranks. What an immense difference exists, in Scotland, between the chiefs and the commonalty of the highland clans? If they had been separately found in different countries, the philosophy of some writers would have ranged them in different species. A similar distinction takes place between the nobility and peasantry of France, of Spain, of Italy, of Germany. It is even more conspicuous in many of the eastern nations, where a wider distance exists between the highest and the lowest classes in society. The *naires* or nobles of Calicut, in the East-Indies, have, with the usual ignorance and precipitancy of travellers, been pronounced a different race from the populace; because the former elevated by their rank, and devoted only to martial studies and achievements, are distinguish-

ed by that manly beauty and elevated stature so frequently found with the profession of arms, especially when united with nobility of descent; the latter, poor and laborious, and exposed to hardships, and left, by their rank, without the spirit or the hope to better their condition, are much more deformed and diminutive in their persons; and in their complexion much more black. In France, says Buffon, you may distinguish by their aspect not only the nobility from the peasantry, but the superior orders of nobility from the inferior, these from citizens, and citizens from peasants. You may even distinguish the peasants of one part of the country from those of another according to the fertility of the soil, or the nature of its product. The same observation has been made on the inhabitants of different counties in England. And I have been assured by a most judicious and careful observer, that the difference between the people in the eastern, and those in the western counties in Scotland, is sensible

and striking. The farmers who cultivate the fertile countries of the Lothians have a fairer complexion, and larger persons, than those who live in the west, and obtain a more coarse and scanty subsistence from a barren soil *.

* It is well known that coarse and meagre food is ever accompanied in mankind with hard features and a dark complexion. Every change of diet, and every variety in the manner of preparing it, has some effect on the human constitution. A servant now lives in my family who was bound to me at ten years of age. Her parents were in abject poverty. The child was, in consequence, extremely fallow in her complexion; she was emaciated, and as is common to children who have lain in the ashes and dirt of miserable huts, her hair was frittered and worn away to the length of little more than two inches. This girl has, by a fortunate change in her mode of living, and indeed by living more like my own children than like a servant, become, in the space of four years, fresh and ruddy in her complexion, her hair is long and flowing, and she is not badly made in her person. A similar instance is now in the family of a worthy clergyman, a friend and neighbour of mine. And many such instances of the influence of diet, and modes of living, will occur to a careful and attentive observer. It equally affects the inferior animals.

If, in England, there exists less difference between the figure and appearance of persons in the higher and lower classes of society, than is seen in many other countries of Europe, it is because a more gene-

The horse, according to his treatment, may be infinitely varied in shape and size. The flesh of many species of game differs both in taste and colour according to the nature of the grounds on which they have fed. The flesh of hares that have fed on high lands, is much fairer than of those that have fed in valleys and on damp grounds. And every keeper of cattle knows how much the firmness and flavour of the meat depends upon the manner of feeding. Nor is this unaccountable: For as each element has a different effect on the animal system; and as the elements are combined in various proportions in different kinds of food, the means of subsistence will necessarily have a great influence on the human figure and complexion.—The difference, however, between the common people in the eastern and western countries of Scotland, in several counties in England, and in other nations, arises, perhaps, not only from their food, and the soil which they inhabit, but, in part likewise, from their occupations, as husbandmen, mechanics, or manufacturers. Husbandry has generally a happier effect on personal appearance, than the sedentary employments of manufacture.

ral diffusion of liberty and wealth has reduced the different ranks more nearly to a level. Science and military talents open the way to eminence and to nobility. Encouragements to industry, and ideas of liberty, favour the acquisition of fortune by the lowest orders of citizens—And, these not being prohibited, by the laws or customs of the nation from aspiring to connections with the highest ranks, families in that country are frequently blended. You often find in citizens the beautiful figure and complexion of the noblest blood; and, in noble houses, the coarse features that were formed in lower life.

Such distinctions are, as yet, less obvious in America, because the people enjoy a greater equality; and the frequency of migration has not permitted any soil, or state of local manners, to impress its character deeply on the constitution. Equality of rank and fortune, in the citizens of the United States, similarity of occupations, and of society, have produced such

uniformity of character, that, hitherto, they are not strongly marked by such differences of feature as arise solely from social distinctions. And yet there are beginning to be formed, independently on climate, certain combinations of features, the result of social ideas, that already serve, in a degree, to distinguish the states from one another. Hereafter they will advance into more considerable and characteristic distinctions.

If the white inhabitants of America afford us less conspicuous instances, than some other nations, of the power of society, and of the difference of ranks, in varying the human form, the blacks, in the southern republics, afford one that is highly worthy the attention of philosophers. —It has often occurred to my own observation.

The field slaves are badly fed, clothed and lodged. They live in small huts on the plantations where they labour, remote

from the society and example of their superiors. Living by themselves, they retain many of the customs and manners of their African ancestors. The domestic servants, on the other hand, who are kept near the persons, or employed in the families of their masters, are treated with great lenity, their service is light, they are fed and clothed like their superiors, they see their manners, adopt their habits, and insensibly receive the same ideas of elegance and beauty. The field slaves are, in consequence, slow in changing the aspect and figure of Africa. The domestic servants have advanced far before them in acquiring the agreeable and regular features, and the expressive countenance of civilized society.—The former are frequently ill shaped. They preserve, in a great degree, the African lips, and nose, and hair. Their genius is dull, and their countenance sleepy and stupid—The latter are straight and well proportioned; their hair extended to three, four, and sometimes even to six or eight inches; the size

and shape of the mouth handsome, their features regular, their capacity good, and their look animated *.

* The features of the negroes in America have undergone a greater change than the complexion; because depending more on the state of society than on the climate, they are sooner susceptible of alteration, from its emotions, habits and ideas. This is strikingly verified in the field and domestic slaves. The former, even in the third generation, retain, in a great degree, the countenance of Africa. The nose though less flat, and the lips though less thick than in the native Africans, yet are much more flat and thick than in the family servants of the same race. These have the nose raised, the mouth and lips of a moderate size, the eyes lively and sparkling, and often the whole composition of the features extremely agreeable. The hair grows sensibly longer in each succeeding race; especially in those who dress and cultivate it with care. After many inquiries, I have found that, wherever the hair is short and closely curled in negroes of the second or third race, it is because they frequently cut it, to save themselves the trouble of dressing. The great difference between the domestic and field slaves, gives reason to believe that, if they were perfectly free, enjoyed property, and were admitted to a liberal participation of the society, rank and privileges of their masters, they

Another example of the power of society is well known to every man acquainted with the savage tribes dispersed along the frontiers of these republics. There you frequently see persons who have been captivated from the states, and grown up, from infancy to middle age, in the habits of savage life. In that time, they universally contract such a strong resemblance of the natives in their countenance, and even in their complexion, as to afford a striking proof that the differences which exist, in the same latitude, between the Anglo-American and the Indian, depend principally on the state of society*.

G 3

would change their African peculiarities much faster.

* The resemblance between these captives and the native savages is so strong, as at first to strike every observer with astonishment. Being taken in infancy, before society could have made any impressions upon them, and spending in the solitude and rudeness of savage life that tender and forming age, they grow up with the same apathy of countenance, the

The college of New-Jersey furnishes, at present, a counterpart to this example. A

same lugubrious wildness, the same swelling of the features and muscles of the face, the same form and attitude of the limbs, and the same characteristic gait, which is a great elevation of the feet when they walk, with the toe somewhat turned in, after the manner of a duck. Growing up perfectly naked, and exposed to the constant action of the sun and weather, amidst all the hardships of the savage state, their colour becomes very deep. As it is but a few shades lighter than that of the natives, it is, at a small distance, hardly distinguishable. This example affords another proof of the greater ease with which a dark colour can be impressed, than effaced from, a skin originally fair. The causes of colour are *active* in their operation, and speedily make a deep impression. White is the ground on which this operation is received. And a white skin is to be preserved only by protecting it from the action of these causes. Protection has merely a *negative* influence, and must therefore be slow in its effects; especially as long as the smallest degree of *positive* agency is suffered from the original causes of colour. And as the skin retains, with great constancy, impressions once received, all dark colours will, on both accounts, be much less mutable than the fair complexion. That period of time, therefore, which would be sufficient in a savage state, to change a white skin to the darkest hue

young Indian, now about fifteen years of age, was brought from his nation a number of years ago to receive an education in this institution. And from an accurate observation of him during the greater part of that time, I have received the most perfect conviction that the same state of society, united with the same climate, would make the Anglo-American and the Indian countenance very nearly approximate. He

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the climate can impress, would, with the most careful protection, lighten a black colour, only a few shades. And because this positive and active influence produces its effect so much more speedily and powerfully than the negative influence, that consists merely in guarding against its operation; and since we see that the skin retains impressions long, and the tanning incurred by exposing it one day to the sun, is not, in many days, to be effaced, we may justly conclude that a dark colour once contracted, if it be exposed but a few days in the year to the action of the sun and weather, will be many ages before it can be entirely effaced. And unless the difference of climate be so considerable as to operate very great changes on the internal constitution, and to alter the whole state of the secretions, the negro colour, for example, may, by the exposure of a poor and servile state, be rendered perpetual.

was too far advanced in savage habits to render the observation complete; because, all impressions received in the tender and pliant state of the human constitution before the age of seven years, are more deep and permanent, than in any future and equal period of life. There is an obvious difference between him and his fellow-students in the largeness of the mouth, and thickness of the lips, in the elevation of the cheek, in the darkness of the complexion, and the contour of the face. But these differences are sensibly diminishing. They seem the faster to diminish in proportion as he loses that vacancy of eye, and that lugubrious wildness of countenance peculiar to the savage state, and acquires the agreeable *expression* of civil life. The expression of the eye, and the softening of the features to civilized emotions and ideas, seems to have removed more than half the difference between him and us. His colour, though it is much lighter than the complexion of the native savage, as is evident from the stain of blushing, that, on a near inspection, is instant-

ly discernible, still forms the principal distinction*. There is less difference between his features and those of his fellow-students, than we often see between persons in civilized society. After a careful attention to each particular feature, and comparison of it with the correspondent feature in us, I am now able to discover but little difference. And yet there is an obvious difference in the whole countenance. This circumstance has led me to conclude that the varieties among mankind are much less than they appear to be. Each single trait or limb, when examined apart, has, perhaps, no diversity that may not be easily accounted for, from known and obvious causes. Particular differences are small. It is the result of the whole that surprizes us by its magnitude. The combined effect of many minute varieties, like the product arising from the multiplication of many small numbers, appears

* See the preceding note for a reason why the complexion is less changed than many of the features.

great and unaccountable. And we have not patience, or skill it may be, to divide this combined result into its least portions, and to see, in that state, how easy it is of comprehension or solution.

The state of society comprehends diet, clothing, lodging, manners, habits, face of the country, objects of science, religion, interests, passions and ideas of all kinds, infinite in number and variety. If each of these causes be admitted to make, as undoubtedly they do, a small variation on the human countenance, the different combinations and results of the whole must necessarily be very great; and combined with the effects of climate will be adequate to account for all the varieties we find among mankind *.

* As all these principles may be made to operate in very different ways, the effect of one may often be counteracted, in a degree, by that of another. And climate will essentially change the effects of all. The people in different parts of the same country may, from various combinations of these causes, be

Another origin of the varieties springing from the state of society is found in the power which men possess over themselves of producing great changes in the human form, according to any common standard of beauty which they may have adopted. The standard of human beauty, in any country, is a general idea formed from the combined effect of climate and of the state of society. And it reciprocally contributes to increase the effect from which it springs. Every nation varies as much from others in ideas of beauty as in personal appearance. Whatever be that standard, there is a general effort

very different. And, from the variety of combination, the poor of one country may have better complexion, features and proportions of person, than those in another, who enjoy the most favourable advantages of fortune. Without attention to these circumstances, a hasty observer will be apt to pronounce the remarks in the essay to be ill-founded, if he examines the human form in any country by the effect that is said to arise from one principle alone, and do not, at the same time, take in the concomitant or correcting influence of other causes.

to attain it, with more or less ardor and success, in proportion to the advantages which men possess in society, and to the estimation in which beauty is held.

To this object tend the infinite pains to compose the features, and to form the attitudes of children, to give them the gay and agreeable countenance that is created in company, and to extinguish all deforming emotions of the passions. To this object tend many of the arts of polished life. How many drugs are sold, and how many applications are made for the improvement of beauty? how many artists of different kinds live upon this idea of beauty? If we dance, beauty is the object; if we use the sword, it is more for beauty than defence. If this general effort after appearance sometimes leads the decrepid and deformed into absurdity, it has, however, a great and national effect.— Of its effect in creating distinctions among nations in which different ideas prevail, and different means are employed for attaining them, we may frame some con-

ception, from the distinctions that exist in the same nation, in which similar ideas prevail, and similar means are used, only in different degrees. What a difference is there between the soft and elegant tints of complexion in genteel life, and the coarse ruddiness of the vulgar?—between the uncouth features and unpliant limbs of an unpolished rustic, and the complacency of countenance, the graceful and easy air and figure of an improved citizen?—between the shaped and meaning face of a well bred lady, and the soft and plump simplicity of a country girl?—We now easily account for these differences, because they are familiar to us, or because we see the operation of the causes. But if we should find an entire nation distinguished by one of these characters, and another by the contrary, some writers would pronounce them different races; although a true philosopher ought to understand that the cultivation of opposite ideas of beauty must have a greater effect in diversifying the human countenance, than various degrees, or modes, of cultivating the same ideas. The

countenance of Europe was more various, three centuries ago, than it is at present. The diversities that depend upon this cause are insensibly wearing away as the progress of refinement is gradually approximating the manners and ideas of the people to one standard. But the influence of a general idea, or standard, of the human form; and the pains taken, or the means employed, to bring our own persons to it, are through their familiarity often little observed. The means employed by other nations, who aim at a different idea, attract more notice by their novelty.—The nations beyond the Indus, as well as the Tartars, from whom they seem to have derived their ideas of beauty with their origin*, universally admire small

* It is probable that the countries of India and China might have been peopled before the regions of Tartary; but the frequent conquests which they have suffered, and particularly the former, from Tartarian nations, have changed their habits, ideas and persons, even more perhaps than Europe was changed by the deluge of barbarians that overwhelmed it.

eyes and large ears. They are at great pains, therefore, to compress their eyes at the corners, and to stretch their ears by heavy weights appended to them, by drawing them frequently with the hand, and by cutting their rims, so that they may hang down to their shoulders, which they consider as the highest beauty. On the same principle, they extirpate the hair from their bodies ; and, on the face, they leave only a few tufts here and there which they shave. The Tartars often extirpate the whole hair of the head, except a knot on the crown, which they braid and adorn in different manners. Similar ideas of beauty with regard to the eyes, the ears and the hair ; and similar customs, in the Aborigines of America, are no inconsiderable proofs that this continent has been peopled from the north-eastern regions of Asia *. In Arabia and

in the fifth century. The present nations beyond the Indus are, in effect, Tartars changed by the power of climate, and of a new state of society.

* The celebrated Dr Robertson, in his history of

Greece large eyes are esteemed beautiful; and in these countries they take extraor-

America, deceived by the misinformation of hasty or ignorant observers, has ventured to assert that the natives of America have no hair on their face or on their body; and like many other philosophers, has set himself to account for a fact that never existed. It may be laid down almost as a general maxim, that the first relations of travellers are false. They judge of appearances in a new country under the prejudices of ideas and habits contracted in their own. They judge from particular instances that may happen to have occurred to them, of the stature, the figure and the features of a whole nation. Philosophers ought never to admit a fact on the relations of travellers, till their characters for intelligence and accurate observation be well ascertained; nor even then, till the observation has been repeated, extended, and compared in many different lights, with other facts. The Indians have hair on the face and body; but from a false sense of beauty they extirpate it with great pains. And traders among them are well informed, that tweezers for that purpose are profitable articles of commerce.

A strange fatality has almost uniformly attended the researches of the most celebrated writers on the natural, as well as on the civil, history of the new world: The Count de Buffon, the Abbé Raynal, and Dr Robertson,

dinary pains to stretch the lids, and extend their aperture. In India, they dilate

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in particular, have, on this subject, erred so frequently, and so egregiously, that their works can hardly be read without contempt:—In the wantonness of speculation, and in the hurry of composition, these gentlemen (to whom the world has long paid a deference bordering on veneration), assuming the tales of idle, credulous and ignorant travellers as philosophic truths, have ventured to deduce from them conclusions of no small importance in the history of our species.—They seem to have conspired, as if it were in unison with each other, to place the natives of the new hemisphere in the lowest grade of HUMANITY; to represent them not only destitute of the usual quantity of intellect allotted to mankind in other portions of the earth, of those milder virtues and passions which dignify man, but also to represent him as destitute of that vigour of body which is observed among the natives of other regions of the globe.—But of all the errors which have seized the imagination of these writers, none seems to be more general than that which is the subject of this note. We shall, therefore, take some pains to remove it entirely from the minds of those who have either been so unfortunate to adopt, with implicit, the assertions of great authorities, or who have not had an opportunity of inquiring into the minutiae of American history.

the forehead in infancy, by the application of broad plates of lead. In China

It is a curious and an interesting fact, that throughout the whole continent of America, the tribes inhabiting that immense portion of the earth, were in the practice of extracting from the face and body, the hair with which nature had furnished them, in common with other nations: "The beardless countenance, and smooth skin" of the American, have been noticed not only by the early and more ignorant, but even by some of the later and more intelligent visitors of the New World, (See the "Memoires Philosophiques, Historiques Physiques concernant la decouverte de l'Amerique," of Don Ulloa); and the consequences which have been drawn from this popular error, have been great.

Had these writers, however, extended their inquiries a little further into the customs of the American, they would have discovered nothing peculiar, no "vice," in the constitution of his system;—and had they been acquainted with the history of some of those very nations by whom it is probable, America was, at least in great part, peopled, they would have observed a similarity of custom, which should equally intitle them to the appellation they have bestowed on the American. Strahlenberg informs us, that the Tungusi, the Kal-mucks, the Koraiiki and the Jakuhti, barbarous nations who inhabit the northern and western parts of Asia, extract the hair which grows about their mouths.

they compress the feet. In Caffraria, and many other parts of Africa, and in Lap-

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But although the Americans (in common with other nations) are furnished with hair on their faces and on their bodies, yet there can be little doubt from the united testimony of many writers, as well as from our own observation, that they are but sparsely supplied with this excrescence. This remark will apply to the greater number if not to all the tribes in the new hemisphere:—The Mexicans in particular, if we may credit Clavigero (*THE HISTORY OF MEXICO*, vol. 1. p. 78. and vol. 2. p. 330. &c.) have but very thin beards, and, in general, are without hair on their arms and legs. —This sparseness of hair, however, is not peculiar to the American: Travellers relate the same of the Laplanders,—the Samojeds,—and of the Ostiacks;—of the Chinese,—the Japanese, and of the natives of the Philippine islands.—But the celebrated writers, above mentioned, were either ignorant of these circumstances; or they were unwilling to mention them, because, perhaps, they impeached the wretched systems which they have maintained: And whilst some vice or imperfection in the constitution of the American were deduced, at least in part, from the smoothness of his skin,—the Chinese and the Japanese, were permitted to enjoy the reputation of their vigour unmolested.

Even, however, admitting the truth of this popular opinion, that the smoothness of skin is peculiar to

land, they flatten the nose in order to accomplish a capricious idea of beauty. The

the inhabitants of the new hemisphere, still the inferences which have been deduced from it by Dr Robertson, and by other writers, are truly ludicrous and contemptible : for however ignorant these celebrated writers may be of the NATURAL (as they have evidently been of the CIVIL) history of an extensive variety of our species, there can be no longer any doubt, that a want of appetite,—an incapacity of labour,—an impotency or incapacity of performing the business of generation,—in short, a general imbecility both of body and of mind, these are no more characteristic of the American than they are of the Asiatic, of the African, or even of the “ enlightened European.”

It is indeed truly astonishing, that Dr Robertson in particular should have ever adopted, on the faith of Jesuits and of Buccaneers, tales of so gross and extravagant a nature ;—as a divine he should believe that the Americans were descended from the same COMMON stock with himself : he has, indeed, leaned to this belief : he has pointed out the very countries from which, he thinks, America received her inhabitants ;—to what causes, then are we to attribute the want of a beard ;—an imbecility of body and an imbecility of mind ?—no causes can be assigned but those which have been adopted by the wretched author of the RECHERCHES PHILOSOPHIQUES SUR LES AMERICAINS, and they need only be mentioned to be refuted.—For even admit-

skin, in many nations, is darkened by art; and all savages esteem certain kinds of deformity to be perfections; and strive to heighten the admiration of their persons, by augmenting the wildness of their features. Through every country on the globe we might proceed in this manner, pointing out the many arts which the inhabitants practise to reach some favourite idea of the human form. Arts that insensibly, through a course of time, produce a great and conspicuous effect. Arts which are usually supposed to have only a personal influence; but which really have an operation on posterity also. The process of nature in this is as little known as in all her other works. This effect is frequently seen. Every remarkable change of feature that has grown into a habit of the body, is transmitted with other personal properties, to offspring. The coarse

ting that any given state of climate were capable of producing the effects just mentioned, yet surely it will not be imagined that one general effect can result from the operation of so many and so different causes.

EDITOR.

features of labouring people, created by hardships, and by long exposure to the weather, are communicated.—The broad feet of the rustic, that have been spread by often treading the naked ground; and the large hand and arm, formed by constant labour, are discernible in children. The increase or diminution of any other limb or feature formed by habits that aim at an idea of beauty, may, in like manner, be imparted. We continually see the effect of this principle on the inferior animals. The figure, the colour and properties of the horse are easily changed according to the reigning taste. Out of the same original stock the Germans who are settled in Pennsylvania, raise large and heavy horses; the Irish raise such as are much lighter and smaller. According to the pains bestowed, you may raise from the same race, horses for the saddle and horses for the draught. Even the colour can be speedily changed according as fashion is pleased to vary its caprice. And, if taste prescribes it, the finest horses shall, in a

short time, be black, or white, or bay *. Human nature much more pliant, and affected by a greater variety of causes from food, from clothing, from lodging and from manners, is still more easily susceptible of change, according to any general standard, or idea of the human form. To this principle, as well as to the manner of living, it may be, in part, attributed that the Germans, the Swedes and the French, in different parts of the United States, who live chiefly among themselves, and cultivate the habits and ideas of the countries from which they emigrated, retain, even in our climate, a strong resemblance of their primitive stocks. Those, on the other hand, who have not confined themselves to the contracted circle of their countrymen, but have mingled freely with the Anglo-Americans, entered into their manners, and adopted their ideas, have assumed such a likeness to them, that it is not

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* By choosing horses of the requisite qualities, to supply the studs.

eafy now to diftinguifh from one another people who have fprung from fuch different origins.

I have faid that the procefs of nature in this, as in all her other works, is inexplicable. One fecondary caufe, however, may be pointed out, which feems to have confiderable influence on the event*. Connexions in marriage will generally be formed on this idea of human beauty in

* Befides this, men will foon difcover thofe kinds of diet, and thofe modes of living that will be moft favourable to their ideas. The power of imagination in pregnant women, might perhaps deferve fome confideration on this fubject. Some years fince, this principle was carried to excefs. I am ready to believe that philofophers, at prefent, run to extremes on the other hand. They deny entirely the influence of imagination. But fince the emotions of fociety have fo great an influence, as it is evident they have, in forming the countenance; and fince the refemblance of parents is communicated to children, why fhould it be deemed incredible that thofe general ideas which contribute to form the features of the parent, fhould contribute alfo to form the features of the child?

any country. An influence this which will gradually approximate the countenance towards one common standard. If men in the affair of marriage, were as much under management as some other animals, an absolute ruler might accomplish, in his dominions almost any idea of the human form. But, left as this connexion is to the passions and interests of individuals, it is more irregular and imperfect in its operations. And the negligence of the vulgar, arising from their want of taste, impedes, in some degree, the general effect. There is, however, a common idea which men insensibly to themselves, and almost without design, pursue. And they pursue it with more or less success in proportion to the rank and taste of different classes in society, where they do not happen in particular instances, to be governed in connexions of marriage by interest ever void of taste. The superior ranks will always be first, and, in general, most improved, according to the prevalent idea of national beauty; because they

have it, more than others, in their power to form matrimonial connexions favourable to this end. The Persian nobility, improved in their idea of beauty, by their removal to a new climate, and a new state of society, have, within a few races, almost effaced the characters of their Tartarian origin. The Tartars, from whom they are descended, are among the most deformed and stupid nations upon earth. The Persians, by obtaining the most beautiful and agreeable women from every country, are become a tall, and well featured, and ingenious nation. The present nations of Europe have, with the refinement of their manners and ideas, changed and refined their persons. Nothing can exceed the pictures of barbarism and deformity given us of their ancestors, by the Roman writers. Nothing can exceed the beauty of many of the present women of Europe and America who are descended from them. And the Europeans, and Americans are, the most beautiful people in the world, chiefly, because their state of society is the most im-

proved. Such examples tend to shew how much the varieties of nations may depend on ideas created by climate, adopted by inheritance, or formed by the infinite changes of society and manners *. They shew, likewise, how much the human race might be improved both in personal and in mental qualities, by a well-directed care.

The ancient Greeks seem to have been the people most sensible of its influence. Their customs, their exercises, their laws, and their philosophy, appear to have had

* Society in America is gradually advancing in refinement : and, if my observation has been just, the present race furnishes more women of exquisite beauty than the last, though they may not always be found in the same families. And if society should continue its progressive improvement, the next race may furnish more than the present. Europe has certainly made great advances in refinement of society, and probably in beauty. And if exact pictures could have been preserved of the human countenance and form in every age since the great revolution made by the barbarians, we should, perhaps, find Europe as much improved in its features as in its manners.

in view, among other objects, the beauty and vigour of the human constitution. And it is not an improbable conjecture, that the fine models exhibited, in that country, to statuaries and painters, were one cause of the high perfection to which the arts of sculpture and painting arrived in Greece. If such great improvements were introduced by art into the human figure, among this elegant and ingenious people, it is a proof, at once, of the influence of general ideas, and of how much might be effected by pursuing a just system upon this subject. Hitherto, it has been abandoned too much to the government of chance. The great and noble have usually had it more in their power than others to select the beauty of nations in marriage: and thus, while, without system or design, they gratified only their own taste, they have generally distinguished their order, as much by elegant proportions of person, and beautiful features, as by its prerogatives in society. And the tales of romances that describe the superlative beauty of captive princesses, and

the fictions of poets, who characterise their kings and nobles, by uncommon dignity of carriage and elegance of person, and by an elevated turn of thinking, are not to be ascribed solely to the venality of writers prone to flatter the great, but have a real foundation in nature*. The ordinary strain of language, which is borrowed from nature, vindicates this criticism. A *princely* person, and a *noble* thought, are usual figures of speech†.—Mental capa-

* Coincident with the preceding remarks on the nations of Europe, is an observation made by Capt. Cook, in his last voyage, on the island Ohwyhee, and on the islands in general, which he visited in the great south sea. He says, “the same superiority which is observable in the *Erees* [or nobles] through all the other islands, is found also here. Those whom we saw, were, without exception, perfectly well formed; whereas the lower sort, besides their general inferiority, are subject to all the variety of make and figure that is seen in the *populace* of other countries.” Cook’s third voyage, book 3d, chap. 6th.

† Such is the deference paid to beauty, and the idea of superiority it inspires, that to this quality,

city, which is as various as climate, and as personal appearance, is, equally with the latter, susceptible of improvement, from similar causes. The body and mind have such mutual influence, that whatever contributes to change the human constitution in its form or aspect, has an equal influence on its powers of reason and genius. And these have again a reciprocal effect in forming the countenance. One nation may, in consequence of constitutional peculiarities, created more, perhaps, by the state of society, than by the climate, be addicted to a grave and thoughtful philosophy; another may possess a brilliant and creative imagination; one may be en-

perhaps, does the body of princes and nobles, collectively taken, in any country, owe great part of their influence over the populace. Riches and magnificence in dress and equipage, produce much of their effect by giving an artificial beauty to the person. How often does history remark, that young princes have attached their subjects, and generals their soldiers, by extraordinary beauty? And young and beautiful queens have ever been followed and served with uncommon enthusiasm.

dowed with acuteness and wit; another may be distinguished for being phlegmatic and dull. *Bæotian* and *Attic* wit was not a fanciful, but real distinction, though the remote origin of Cadmus and of Cecrops was the same. The state of manners and society in those republics produced this difference more than the Bæotian air, to which it has been so often attributed. By the alteration of a few political, or civil, or commercial institutions, and consequently, of the objects of society and the train of life, the establishment of which depended on a thousand accidental causes, Thebes might have become Athens, and Athens Thebes. Different periods of society, different manners, and different objects, unfold and cultivate different powers of the mind. Poetry, eloquence, and philosophy seldom flourish together in their highest lustre. They are brought to perfection by various combinations of circumstances, and are found to succeed one another in the same nation at various periods, not because the race of men, but because manners and objects are changed.

If as faithful a picture could be left to posterity of personal as of mental qualities, we should probably find the one, in these several periods, as various as the other; and we should derive from them a new proof of the power of society to multiply the varieties of the human species. Not only deficiency of objects to give scope to the exercise of the human intellect is unfavourable to its improvement; but all rudeness of manners is unfriendly to the culture, and the existence of taste, and even coarse and meagre food may have some tendency to blunt the powers of genius. These causes have a more powerful operation than has hitherto been attributed to them by philosophers; and merit a more minute and extensive illustration than the subject of this discourse will admit. The mental capacities of savages, for these causes, are usually weaker than the capacities of men in civilized society*. The powers of their minds,

* The exaggerated representations which we sometimes receive of the ingenuity and profound wisdom

through defect of objects to employ them, lie dormant, and even become extinct. The faculties which, on some occasions, they are found to possess, grow feeble through want of motives to call forth their exercise. The coarseness of their food, and the filthiness of their manners, tend to blunt their genius. And the Hot-tentots, the Laplanders, and the people of New-Holland are the most stupid of mankind ; for this, among other reasons, that they approach, in these respects, the nearest to the brute creation †.

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of savages, are the fruits of weak and ignorant surprise. And savages are praised by some writers for the same reason that a monkey is—a certain imitation of the actions of men in society, which was not expected from the rudeness of their condition. There are doubtless degrees of genius among savages as well as among civilized nations ; but the comparison should be made of savages among themselves ; and not of the genius of a savage with that of a polished people.

† It is well known that the Africans who have been brought to America, are daily becoming, under all the disadvantages of servitude, more ingenious and

I am now come to show in what manner the features of savage life are affected by the state of society.

Civilization creates some affinity in countenance among all polished nations. But there is something so peculiar and so stupid in the general countenance of savages, that they are liable to be considered as an inferior grade in the descent from the human to the brute creation. As the civilized nations inhabit chiefly the temperate climates, and savages, except in America, the extremes of heat and cold, these differences in point of climate, combined with those that necessarily arise out of their state of society, have produced varieties so great as to astonish hasty observers, and hasty philosophers. The varieties, indeed, produced in the features by savage life are great ; but the real sum of them is not so

susceptible of instruction. This effect, which has been taken notice of more than once, may, in part perhaps, be attributed to a change in their modes of living, as well as to society, or climate.

great as the apparent. For the eye taking in at one view, not only the actual change made in each feature, but their multiplied and mutual relations to one another, and to the whole; and each new relation giving the same feature a different aspect, by comparison, the final result appears prodigious*.—For example, a change made in the eye, produces a change in the whole countenance; because it presents to us, not singly the difference that has happened in that feature, but all the differences that arise from its combinations with every feature in the face. In like manner, a change in the complexion presents not its own difference only, but a much greater effect by a similar combination with the whole countenance. If both the eyes and the complexion be changed in the same person, each change affecting the whole features, the combination of the two results will produce a third incomparably

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* See pages 83 and 84.

greater than either. If, in the same way, we proceed to the lips, the nose, the cheeks, and to every single feature in the visage, each produces a multiplied effect, by comparison with the whole; and the result of all, like the product of a geometrical series, is so much beyond our first expectation, that it confounds common observers, and will sometimes embarrass the most discerning philosophers, till they learn, in this manner, to divide and combine effects.

To treat this subject fully, it would be necessary, in the first place, to ascertain the general countenance of savage society—and then, as there are degrees in the savage as well as in the civilized state, to distinguish the several modifications which each degree makes in the general aspect—and, in the last place, to consider the almost boundless varieties that arise from combining these general features with the effects of climate and of other causes already mentioned.—I do not propose, however, to pursue the subject to such extent. I shall

endeavour to draw, only, the general outlines of the savage countenance as it is formed by the state of society; and shall leave its changes resulting from the different degrees of that state, and from the combinations of these with other causes and effects, to exercise the leisure and observation of the ingenious.

The eye of a savage is vacant and unexpressive—The whole composition of his countenance is fixed and stupid—and over these unmeaning features is thrown an air of wildness and melancholy—The muscles of the face are soft and lax—and the face is dilated at the sides—the mouth is large, the lips swelled and protruded—and the nose, in the same proportion, depressed*.

This is the picture.—To explain it I ob-

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* In this representation of the savage countenance, I have chiefly in view the American savage; although its general lineaments, and the causes assigned for them, may, in a great degree, be universally applied.

serve, that the expression of the eye, and of the whole countenance, depends on the nature and variety of thought and emotion. Joy and grief, solitude and company, objects of attention, habits, manners, whatever occupies the mind, tends to impress upon the countenance its peculiar traits. Mechanical occupations, and civil professions, are often distinguished by peculiarities in manner and aspect. We frequently discriminate with ease religious denominations by a certain countenance formed by the habits of their profession. Every thought has an influence in forming and diversifying the character of the countenance, and vacuity of thought leaves it unmeaning and fixed. The infinite variety of ideas and emotions in civilized society, will give every class of citizens some distinguishing expression, according to their habits and occupations; and will bestow on each individual some singular and personal traits, according to his genius, education, or pursuits. Between savage and civilized society there will be all the difference that can arise from think-

ing and from want of thought. Savages will have all that uniformity among themselves in the same climate, that arise from vacancy of mind, and want of emotion. Knowledge is various, but ignorance is ever the same. A vacant eye, a fixed and unmeaning countenance of idiotism, seem to reduce the savage in his aspect many grades nearer than the citizen, to the brute creation. The solitude in which he lives, disposes him to melancholy. He seldom speaks or laughs. Society rarely enlivens his features. When not engaged in the chase, having no object to rouse him, he reclines sluggishly on the ground, he wanders carelessly through the forest, or he sits for hours in one posture, with his eyes fixed to a single point, and his senses lost in sullen and unmeaning reverie. These solitary and melancholy emotions serve to cast over his visage, which other causes render fixed, and unexpressive, a sad and lugubrious air. The wild scenes of nature in an uncultivated country impress some resemblance of themselves on the

features—and the passions of war and rage, which are almost the only ones that occupy the mind of a savage, mingle with the whole an aspect of brutal ferocity*.

Paucity of ideas, solitude and melancholy, contribute likewise in no small degree, to form the remaining features of a savage—a large and protruded mouth, a dilated face, and a general laxness and swell of all its muscles†.

Society and thought put a stricture upon the muscles of the face, which, while

* The inhabitants of the numerous small islands in the great Southern and Pacific oceans form an exception to this remark. Prevented, by their isolated state, from engaging in perpetual hostilities with neighbouring tribes, like the continental savages, they are distinguished by an air of mildness and complacency which is never seen upon the continent.

† That these are natural tendencies of solitude, and vacancy of thought, we may discern by a small attention to ourselves, during a similar state, or similar emotions of mind.

it gives them meaning and expression, prevents them from dilating and swelling as much as they would naturally do. They collect the countenance more towards the center, and give it a greater elevation there*. But the vacant mind of the savage leaving the face, the index of sentiment and passion, unexerted, its muscles are relaxed, they consequently spread at the sides, and render the middle of the face broad.

Grief, peculiarly, affects the figure of the lips, and makes them swell.—So do all solitary and melancholy emotions. When, therefore, these are the natural result of the state of society—when they operate from infancy, and are seldom counteracted by the more gay and intense emotions

* The advancement of society and knowledge is probably one reason why the Europeans in general have a more elevated countenance than the Asiatics. The reader will be kind enough to remember that all remarks of this nature are only general, and not intended to reach every particular instance, or to insinuate that there may not, in the infinite variety of nature, be many particular exceptions.

of civil life, the effect will at length become considerable. The mouth of a savage will generally be large, and the lips, in a less or greater degree, thick and protruded*.

The nose affects, and is affected by the other features of the face. The whole features usually bear such relation to one another, that if one be remarkably enlarged, it is accompanied with a proportional diminution of others. A prominent nose is commonly connected with a thin face, and thin lips. On the other hand, a broad face, thick lips, or a large and a blunt chin, is accompanied with a certain depression of the feature of the nose. It seems as if the extension of the nerves in one direction, restrained and shortened

* The rustic state, by its solitude and want of thought and emotion, bears some analogy to the savage. And we see it accompanied by similar effects on the visage. The countenance vacant, the lips thick, the face broad and spread, and all its muscles lax and swelling.

them in another *. Savages, therefore, commonly have this feature more sunk and flat, than it is in civil society. This, though a partial, is not the whole cause of that extreme flatness which is observed in part of Africa, and in Lapland. Climate enters there, in a great degree, for the effect; and it is aided by an absurd sense of beauty that prompts them often to depress it by art †.

* By a small experiment on ourselves we may render this effect obvious. By a protusion of the lips, or by drawing down the mouth at the corners, we shall find a stricture on the nose that, in an age when the features were soft and pliant, would sensibly tend to depress it. A like tendency continued through the whole of life, would give them an habitual position very different from the common condition of civilized society; and the effect would be much greater than would readily occur to our first reflections upon the subject.

† That such an effect should be the result of climate is not more wonderful than the thick necks created by the climate of the Alps; or than other effects that certainly spring from this cause, within our own knowledge. That it arises from climate, or the state of society, or both, is evident, because the nose

The preceding observations tend to account for some of the most distinguishing features of savages. To these I might have added another general reason of their peculiar wildness and uncouthness in that state of society.—The feelings of savages, when they deviate from their usual apathy, are mostly of the uneasy kind; and to these they give an unconstrained expression. From this cause will necessarily result a habit of the face, in the highest degree rude and uncouth. As we see, a similar negligence among the vulgar adds exceedingly to that disgusting coarseness which so many other causes contribute to create.

I have now finished the discussion which I proposed, as far as I design at present to pursue it.—Many of the observations which have been made in the progress of it may, to persons not accustomed to a nice examination of the powers of natural

is becoming more prominent in the posterity of those who have been removed from Africa to America.

causes, appear minute and unimportant. It may be thought that I have attributed too much to the influence of principles that are so slow in their operation and imperceptible in their progress. But, on this subject, it deserves to be remembered, that the minutest causes, by acting constantly, are often productive of the greatest consequences. The incessant drop wears a cavity at length in the hardest rock. The impressions of education, which singly taken are scarcely discernible, ultimately produce the greatest differences between men in society. How slow the progress of civilization, which the influence of two thousand years hath, as yet, hardly ripened in the nations of Europe? How minute and imperceptible the operation of each particular cause that has contributed to the final result? And, yet, how immense the difference between the manners of Europe barbarous, and of Europe civilized? There is surely not a greater difference between the figure and aspect of any two nations on the globe. The pliant nature of man is susceptible of change from

the minutest causes, and these changes, habitually repeated, create at length conspicuous distinctions. The effect proceeds increasing from one generation to another, till it arrives at that point where the constitution can yield no farther to the power of the operating cause. Here it assumes a permanent form and becomes the character of the climate or the nation.

Superficial thinkers are often heard to ask, why, unless there be an original difference in the species of men, are not all *born* at least with the same figure, or complexion? It is sufficient to answer to such inquiries, that it is for the same reason, whatever that may be, that other resemblances of parents are communicated to children. We see that figure, stature, complexion, features, diseases, and even powers of the mind become hereditary. To those who can satisfy themselves with regard to the communication of these properties, the transmission of climatical or national differences ought not to appear surprising—the same law will account for

both.—If it be asked why a sun-burnt face or a wounded limb is not also communicated by the same law? it is sufficient to answer that these are only partial accidents which do not change the inward form and temperament of the constitution. It is the constitution that is conveyed by birth. The causes which I have attempted to illustrate, change, in time, its whole structure and composition—And when any change becomes incorporated, so to speak, it is, along with other constitutional properties, transmitted to offspring.

I proceed now to consider the exceptions existing among mankind that seem to contradict the general principles that have been laid down concerning the influence of climate, and of the state of society.

I begin with observing, that these exceptions are neither so numerous nor so great as they have been represented by ignorant and inaccurate travellers, and by credulous philosophers. Even Buffon seems to be credulous when he only doubts con-

cerning the relations of Struys, and other prodigy-mongers, who have filled the histories of their voyages with crude and hasty observations, the effects of falsehood, or of stupid surprise. Nothing can appear more contemptible than philosophers with solemn faces, retailing like maids and nurses, the stories of giants*—of tailed men†—of a people without

* Buffon, describing the inhabitants of the Marian, or Ladrone islands, supposes that they are, in general, a people of large size; and that some may have been seen there of gigantic stature. But before Buffon wrote, there was hardly a navigator who did not see many giants in remote countries. Buffon has the merit of rejecting a great number of incredible narrations.

† Lord Monboddo supposes that mankind, at first, had tails—that they have fallen off by civilization—but that there are still some nations, and some individuals, who have this honourable mark of affinity with the brutes. What effect might result from the conjunction of a savage with an ape, or an Orang-Outang, it is impossible to say. But a monstrous birth, if it should happen, however it may be exaggerated by the ignorance of sailors, should never be dignified as a species in the writings of philosophers.

teeth *—and of some absolutely without necks †. It is a shame for philosophy at this day to be swallowing the falsehoods, and accounting for the absurdities of sailors. We in America, perhaps, receive such tales with more contempt than other nations; because we perceive in such a strong light, the falsehood of similar wonders, with regard to this continent, that were a few years ago reported, believed, and philosophised on in Europe. We hear every day the absurd remarks, and the false reasonings of foreigners on almost every object that comes under their observation in this new region. They judge of things, of men, and of manners under the

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* A most deformed and detestable people whom Buffon speaks of as natives of New-Holland.

† Sir Walter Raleigh pretends to describe a people of that kind in Guiana. Other voyagers have given a similar account of some of the Tartar tribes. The necks of these Tartars are naturally extremely short; and the spirit of travelling prodigy has totally destroyed them.

influence of habits and ideas framed in a different climate, and a different state of society ; or they infer general and erroneous conclusions from single and mistaken facts, viewed through that prejudice, which previous habits always form in common minds*.

* It requires a greater portion of reflexion and philosophy than falls to the lot of ordinary travellers to enable them to judge with propriety of men and things in distant countries. Countries are described from a single spot, manners from a single action, and men from the first man that is seen on a foreign shore, and perhaps him only half seen, and at a distance. From this spirit, America has been represented by different travellers as the most fertile or the most barren region on the globe. Navigators to Africa often speak of the spreading forests and luxuriant herbage of that arid continent, because some scenes of this kind are presented to the eye along the shores of the Gambia and the Senegal. And surprise occasioned by an uncommon complexion or composition of features, has increased or diminished the stature of different nations beyond all the proportions of nature.—Such judgments are similar, perhaps, to those which a Chinese sailor would form of the United States who had seen only cape May ; or would form of Britain or of France, who had seen only the ports of Dover or of

Since America is better known, we find no canibals in Florida ; no men in Guiana

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Calais. What information concerning those kingdoms could such a visitant afford his countrymen from such a visit ? Beside the limited sphere of his observation, he would see every thing with astonishment or with disgust, that would exaggerate, or distort his representation. He would see each action by itself without knowing its connexions ; or he would see it with the connexions which it would have in his own country. A similar error induced Capt. Cook, in his first voyage, to form an unfavourable opinion of the modesty and chastity of the women of Otaheite, which more experience taught him to correct. Many such false judgments are to be found in almost every writer of voyages or travels. The savages of America are represented as frigid, because they are not ready for ever to avail themselves of the opportunities offered by their state of society, to violate the chastity of their females. They are sometimes represented as licentious, because they often lie promiscuously round the same fire. Both judgments are false, and formed on prepossessions created in society. Simplicity of manners, more than constitution, or than climate, produces that appearance of indifference, on the one hand, that is called frigidity, and that promiscuous intercourse, on the other, that is supposed to be united with licence. Luxury, restraints,

with heads sunk into their breasts; no martial Amazons. The giants of Patagonia have disappeared; and the same fate should have attended those of the Ladrone islands, whom Buffon, after Gemelli Carre-

and the arts of polished society inflame desire, which is allayed by the coarse manners, and hard fare of savage life, where no studied excitements are used to awaken the passions. The frontier counties of all these states at present afford a striking example of the truth of this reflexion. Poor, and approaching the roughness and simplicity of savage manners, and living in cabins that have no divisions of apartments, whole families, and frequently strangers lodge together in the same inclosure without any sense of indecency, and with fewer violations of chastity than are found amidst the restraints and incitements of more polished society. On a like foundation cowardice has been imputed to the natives of America, because they prosecute their wars by stratagem—insensibility, because they suffer with patience—and thievishness, because a savage, having no notion of personal property but that which he has in present occupation and enjoyment, takes without scruple what *he* wants, and sees *you* do not need. In innumerable instances the act of one man, the figure or stature of the first vagrant seen upon a distant shore, has furnished the character of a whole nation. It is absurd to build philosophic theories on the ground of such stories.

ri, has been pleased to mention. Tavernier's tales of the smooth and hairless bodies of the Mogul women, may be ranked with those which have so long, and so falsely attributed this peculiarity to the natives of America. The same judgment may we form of those histories which represent nations without natural affection; without ideas of religion; and without moral principle*. In a word, the greater

K 3

* Nations have been judged to be without religion because travellers have not seen temples; because they have not understood their customs, or their language; or have not seen them engaged in any act of worship. Nations have been judged to be without natural affection, because one man has been seen to do an act of barbarity. But one of the nations which seems to have departed farthest from the laws of human nature is mentioned by Lord Kames in his laudable attempts to disprove the truth of revelation. He thinks it certain that the Giagas, a nation of Africa, could not have descended from one origin with the rest of mankind, because, totally unlike all others, they are void of natural affection. They kill, says his Lordship, all their own children as soon as they are born, and supply their places with youth stolen

part of those extraordinary deviations from the laws of climate, and of society, which formerly obtained credit, are discovered, by more accurate observation, to have no existence. If a few marvellous phenomena are still retailed by credulous writers, a short time will explode them all, or show that they are misunderstood, and enable philosophers to explain them on the known principles of human nature.

Leaving such pretended facts and the reasonings to which they have given rise, to deserved contempt, I shall consider a few apparent deviations from the preceding

from the neighbouring tribes. If this character had been true, even his Lordship's zeal for a good cause, might have suffered him to reflect that the Giagas could not have continued a separate race, longer than the first stock should have lived. The stolen youth would resemble their parents, and would, at length, compose the nation. And yet the Giagas, according to his Lordship, would continue to kill their children, and to be a standing monument of the falsehood of the scriptures! An excellent specimen of the easy faith of infidelity.—Prelim. Disc. to Sketches of the Hist. of Man, by Lord Kames.

principles that have been ascertained. It will not be necessary to go into an extensive detail of minute differences. These might be tedious and unimportant : I shall propose only the most conspicuous ; persuaded that, if they are satisfactorily explained, every reasonable inquirer will rest convinced that natural causes exist in every country sufficient to account for smaller distinctions.

In tracing the same parallels from east to west, we do not always discern the same features and complexion. In the countries of India, and on the northern coasts of Africa, nations are mingled together who are distinguished from one another by great varieties. The torrid zone of Asia is not marked by such a deep colour nor by such parched hair as that of Africa ; and the colour of tropical America is, in general, lighter, than that of Asia.

Africa is not uniform. The complexion of the western coast is a deeper black than

that of the eastern. It is even deeper on the north of the equator than on the south. The Abyssinians form an exception from all the other inhabitants of the African zone—and when we go beyond that zone to the south, the Hottentots seem to be a race by themselves. In their manners the most beastly, and in their persons and the faculties of their minds approaching the nearest to brutes of any of the human species.

For the explication of these varieties it is necessary to observe, that the same parallel of latitude does not uniformly indicate the same temperature of heat and cold. Vicinity to the sea, the course of winds, the altitude of lands, and even the nature of the soil, create great differences in the same climate. The state of society in which any nation takes possession of a new country has a great effect in preserving, or in changing their original appearance. Savages necessarily undergo great changes by suffering the whole action and force of climate without protection. Men

in a civilized state enjoy innumerable arts by which they are enabled to guard against its influence, and to retain some favourite idea of beauty formed in their primitive seats: Yet every migration produces a change. And the combined effects of many migrations, such as have been made by almost all the present nations of the temperate zone, must have great influence in varying the human countenance. For example—A nation which migrates to a different climate will, in time, be impressed with the characters of its new state. If this nation should afterwards return to its original *seats*, it would not perfectly recover its primitive features and complexion, but would receive the impressions of the first climate, on the ground of those created in the second. In a new removal the combined effect of the two climates would become the ground, on which would be impressed the characters of the third. This exhibits a new cause of endless variety in the human countenance.

These principles will serve to explain

many of the differences that exist in those countries which have been the subjects of most frequent conquest *. India and the northern regions of Africa, have been often conquered, and many nations have established colonies in these countries for the purposes of commerce. All these nations before their migrations, or their conquests, were in a less or greater degree civilized. They were able, therefore, to preserve, with some success, their original features against the influence of the climate. Their diet, their habits, their manners and their arts, all would contribute to this effect. As these causes are capable of creating great varieties among men, much more are they capable of preserving varieties already created. The Turks, therefore, the Arabs, and the Moors in the north of Africa, will remain distinct in their figure and complexion, as long as

* Especially if religion, manners, policy, or other causes, prevent people from uniting freely in marriages, and from submitting to the same system of government and laws.

their manners are different. And the continent and islands of India will be filled with a various race of people while the productions of their climate continue to invite both conquests and commerce. The climate will certainly change in a degree the appearance of all the nations who remove thither; but the difference in the degree and the combination of this effect with their original characters, will still preserve among them essential and conspicuous distinctions*.

* From the preceding principles we may justly conclude that the Anglo-Americans will never resemble the native Indians. Their civilization will prevent so great a degeneracy. But were it possible that they should become savage, the resemblance could never be complete; because the one would receive the impressions of the climate on a countenance, the ground of which was formed in Europe, and in a state of improved society; the other has plainly received them on a countenance formed in Tartary. And yet the resemblance becomes near and striking in those persons who have been captivated by the Indians in infancy, and have grown up among them in the habits of savage life. These principles likewise will lead us to conclude that the Samoiedes are Tar-

Another variety which seems to form an exception from the principles hitherto laid down, but which really establishes them, is that the torrid zone of Asia is not marked by such a deep colour, nor, except in a few countries, by such curled hair, as that of Africa. The African zone is a region of burning sand which augments the heats of the sun to a degree almost inconceivable. That of Asia consists chiefly of water which, absorbing the rays of the sun, and filling the atmosphere with a cool and humid vapour, creates a wind comparatively temperate over its numerous islands and narrow peninsulas. The principal body of its lands lies nearer to the northern tropic than to the equator. In summer the winds blow from the south across extensive oceans; in the winter from continents that

tars degenerated by the effects of extreme cold—and that the Empire of China and most of the countries of India have been peopled from the north. For their countenance seems to be composed of the soft feature of the Lower Asia, laid upon a ground formed in the Upper Asia;

the sun has long deserted*. Yet, under all the advantages of climate which Asia enjoys, we find in Borneo and New-Guinea, and perhaps in some others of those vast insular countries, which, by their position and extent, are subject to greater heats than the continent, or by the savage condition of the inhabitants, suffer the influence of those heats, in a higher degree, a race of men resembling the African negroes. Their hair, their complexion and their features, are nearly the same. At the distance of more than three thousand miles across the Indian ocean, it is impossible that they should have sprung from the savages of Africa, who have not the means of making such extensive voyages†. Similarity of climate, and of manners, have

* The monsoons are found to blow over the whole Asiatic zone.

† The Europeans were highly civilized before they discovered the continent of America, which is not so remote from their shores as Borneo or New-Holland is from the coast of Africa.

created this striking resemblance, between people so remote from one another.

The next apparent exception we discover in Africa itself. Africa, like Europe and Asia, is full of varieties, arising from the same causes, vicinity to the sun, elevation of the land, the heat of winds, and the manners of the people. But the two principal distinctions of colour, under which the rest may be ranged, that prevail from the northern tropic, or a little higher, to the Cape of Good-Hope, are the Caffre and the negro. The Caffre complexion prevails along the eastern coast, and in the country of the Hottentots. The negro, on the western coast between the tropics. The negro is the blackest colour of the human skin, the Caffre is much lighter, and seems to be the intermediate grade between the negro and the native of India. The cause of this difference will be obvious to those who are acquainted with that continent. The winds under the equator, following the course of the sun, reach the eastern coast of Af-

rica, cooled by blowing over immense oceans, and render the countries of Aian, Zanguebar and Monomotapa, comparatively temperate. But after they have traversed that extensive continent, and in a passage of three thousand miles have collected all the fires of the burning desert to pour them on the countries of Guinea, of Sierra-Leona, and of Senegal *, they glow with an ardor unknown in any other portion of the globe. The intense heat, which, in this region, makes such a prodigious change on the human constitution, equally transforms the whole race of beasts and of vegetables. All nature bears the marks of a powerful fire †. And the negro is no

* These countries receive the wind after blowing over the widest and hottest part of Africa, and consequently suffer under a more intense heat than the countries of Congo, Angola, or Loango to the south of the equator. Accordingly, we find the people of a deeper black in the northern than in the southern section of the torrid zone.

† The luxuriance of the trees and herbage along the banks of the great rivers has deceived some tra-

more changed from the Caffre, the Moor, or the European, than the proportional laws of climate, and of society, give us reason to expect. Above the Senegal, we find in the nation of the Foulies a lighter shade of the negro colour; and immediately beyond them to the north, the darkest copper of the Moorish complexion. There is a smaller interval between the copper colour and the perfectly black on the north than on the south of the torrid zone; because the Moors being more civilized than the Hottentots, are better able to defend themselves against the impressions of the climate. But the Hottentots, being the most savage of mankind, suffer

vellers who have represented Africa as a rich and fertile country. As soon as you leave the rivers, which are very few, you enter on a parched and naked soil. And the whole interior parts of that continent, as far as they have been explored, are little else than a desert of burning sand, that often rolls in waves like the ocean. Buffon mentions a nation in the centre of Africa, the Zuinges, who, the Arabian writers say, are often almost entirely cut off, by hot winds that rise out of the surrounding deserts.

the influence of their climate in the extreme. And they endeavour, by every mean, to preserve the features and the complexion of the equator, from whence, it is probable, they derived, with their ancestors, their ideas of beauty. It is more easy to preserve acquired features or complexion, than to regain them after they have been lost. The Hottentots preserve with some success, those that they had acquired under the equator. They flatten, by violence, the nose of every child soon after it is born; they endeavour to deepen the colour of the skin by rubbing it with the most filthy unguents, and by exposing it to the influence of a scorching sun; and their hair they burn up by the vilest compositions. Yet, against all their efforts, the climate, though it is but a few degrees declined from the torrid zone, visibly prevails. Their hair is thicker and longer than that of the negroes; and their complexion near the Cape is the lightest stain of the Caffre colour. Allowing for the effects of their savage condition, and of

their brutal manners, they are marked nearly with the same hue that distinguishes the correspondent northern latitudes*.

As you ascend along the eastern coast from Cafraria to Aian, the complexion becomes gradually deeper, till suddenly you find, in Abyssinia, a race of men resembling the southern Arabians. Their hair is long and straight, their features tolerably regular, and their complexion a very dark olive approaching to the black. This singularity is easily explained on the principles already established: and it is an additional confirmation of these principles that they are found to reach all the effects to which they are applied. The Abyssinians are a civilized people, and bear evident marks of Asiatic origin. They are situated in the mildest region of tropical

* With regard to other peculiarities that have been related of this people, and that reduce them in their figure the nearest to the brute creation of any of the human species, great part of them are false, others exaggerated, and those that are true are the natural offspring of their brutal manners.

Africa, and are fanned by the temperate winds that blow from the Indian ocean. Abyssinia is likewise a high and mountainous country, and is washed during half the year by deluges of rain which impart unusual coolness to the air. It is, perhaps, one of the most elevated regions on earth, as, from its mountain spring two of the largest and the longest rivers in the world, the Niger and the Nile*. This altitude of the lands, raises it to a region of the atmosphere that is equivalent to many degrees of northern latitude†. Thus, the

L 2

* The prodigious and incessant deluges of rain that fall in Abyssinia during six months in the year, are the cause of the overflowing of the Nile. They render the atmosphere temperate, and are a proof of the elevation of the country, no less than the length of the rivers that originate in its mountains. The greatest quantity of rains usually fall on mountains and the highest lands; and their elevation may, in a great measure, be determined by the length of the rivers that issue from them.

† Some writers inform us that the barometer rises in Abyssinia, on an average, no higher than 20 inches. If this be true, that kingdom must be situated more

civilization of the people, the elevation of the country, the temperature of the winds, and incessant clouds and rain during that season of the year in which the sun is vertical, all contribute to create that form and colour of the human person in Abyssinia, which is considered as a prodigy in the torrid zone of Africa.

Having considered the principal objections to the preceding theory existing in India and Africa, it may be expected that I should not omit to mention the white Negroes of Africa, and the white Indians of Darien, and of some of the oriental islands, which are so often quoted upon this subject. Ignorant or interested writers have endeavoured to magnify this phenomenon into an argument for the original distinction of species. But those

than two miles above the level of the sea. But if we should suppose this account to be exaggerated, still we must judge its altitude to be very great, considering that it is almost entirely a region of mountains, which are the sources of those vast rivers.

who have examined the fact with greater accuracy, have rendered it evident that their colour is the effect of some distemper. These whites are rare; they have all the marks of an extreme imbecility; they do not form a separate race, or continue their own species; but are found to be the accidental and diseased production of parents who themselves possess the full characters of the climate*.

L 3

* Mr James Lind, a physician of great reputation, has recorded a similar deviation from the law of climate in a black child born of white parents. The fact he assures us occurred to his own observation. See *Phil. Transf. of Roy. Soc. Lond.* N^o 424.

The small tribe of red people, which Dr Shaw, in his travels, relates that he saw in the mountains of Aurels, a part of the vast ridge of Atlas, are probably a remnant of the Vandals who, in the fifth century, conquered the northern countries of Africa. Their manners, and the altitude of their situation, in those cold mountains, may have contributed to preserve this distinction between them and the Moors and Arabs, who live in the low lands. Lord Kames, who writes with infinite weakness on this subject, exclaims

It now remains only to account for the aspect of the savage natives of America, which varies from the examples we have considered in the other portions of the earth. Their complexion is not so fair as that of Europe or of Middle Asia. It is not so black as that of Africa, and many of the oriental islands. There is a greater uniformity of countenance throughout this whole continent than is found in any other region of the globe of equal extent.

That the natives of America are not fair, is a natural consequence of the principles already established in this essay; in which

with an air of triumph, if the climate in a thousand years has not changed these people into a perfect resemblance of the aborigines, we may safely pronounce it never will change them,—I confess it, if they preserve their present elevation. But to conclude that the climate cannot change them on the plains, because it has not changed them on the mountains, is the same kind of reasoning as it would be to conclude that the sun could not melt snow at the bottom of *Ætna* or *Pambamarca* because it continues eternally frozen at the top.

it has been shown that savages, from their exposure, their hardships, and their manner of living, must, even in temperate climates, be discoloured by different shades of the tawny complexion.

The uniformity of their countenance results in some degree from that of the climate, which is the less various, that America possesses the coolest tropical region in the world. But it results principally from their state of society, their manners, their means of subsistence, the nature and limitation of their ideas, which preserve an uncommon resemblance from Canada to Cape Horn. Though complexion is less diversified in America than in other regions of the earth; yet there is a sensible gradation of colour*, till you arrive at the darkest

L 4

* In travelling from the great lakes to Florida or Louisiana, through the Indian nations, there is a visible progression in the darkness of their complexion. And at the councils of confederate nations, or at treaties for terminating an extensive war, you often

hue of this continent in the nations on the west of Brazil. Here the continent being wider, and consequently hotter, than in any other part between the tropics, is more deeply coloured. And the Toupinamboes and Toupayas, and other tribes of that region, bear a near resemblance, in their complexion, to the inhabitants of the oriental zone. We find indeed no people in America so black as the Africans. This is the peculiarity that attracts most observation and inquiry. The cause I propose now to explain.

The torrid zone of America is uncommonly temperate. This effect arises in

see sachems and warriors of very different hues. But the colour of the natives of America, though diversified, is less various than in other quarters of the globe of equal extent of latitude. And as the same state of society universally prevails, there is a system of features that results from this, which is every where similar. These features giving the predominant aspect to the face, and being united with a complexion less various than in Africa or Asia, form what is called the uniformity of the American countenance.

part from its shape ; in part from its high mountains, and extensive lakes and rivers ; and in part from its uncultivated state. All uncultivated regions, covered with forests and with waters, are naturally cold*. The torid zone of America is narrow—its mountains and its rivers are immense—and Amazonia may be considered, during a great portion of the year, as one extensive lake †. Let us advert to the influence of these circumstances. The empire of Mexico is a continued isthmus of high and mountainous lands. Cool by their elevation, they are fanned on each side by winds from the eastern and western oceans. Terra Firma is a hilly region. Amazonia,

* The difference, in point of climate, which cultivation has produced between modern and ancient Europe, is well known. And it is probable that, if civilization shall, in future time, be introduced into Tartary, that frozen climate will be mollified, and the deformed Tartars may, with change of climate and of manners, become personable men.

† On account of its numerous rivers and its flooded lands.

though low and flat, is shaded by boundless forests, and cooled by the numerous waters that flow into the largest rivers in the world. The mildness of its atmosphere is augmented by the perpetual east wind that blows under the equator. This wind having deposited in the Atlantic ocean the heats acquired in its passage across the continent of Africa, regains a moderate temperature before it arrives at the American coast. In America it continues its course over thick forests and innumerable waters, to the mountains of the Andes. The Andes are colder than the Alps. And the empire of Peru defended, on one side, by these frozen ridges; fanned on the other by a perpetual west wind from the Pacific ocean; and covered by a canopy of dense vapour, through which the sun never penetrates with force, enjoys a temperate atmosphere. The vast forests of America are an effect of the temperature of the air, and contribute to promote it. Extreme heat parches the soil, and converts it into an arid sand—luxuriant

vegetation is the fruit of a moist earth, and a temperate sky. And the natives, inhabiting perpetual shade, and respiring in the grateful and refrigerating effluvia of vegetables, enjoy, in the midst of the torrid zone, a moderate climate.

These observations tend to show that, as far as heat is concerned in the effect, the colour of the American must be much less deep than that of the African, or even of the Asiatic zone. And to me it appears, and, I doubt not, to every candid and intelligent inquirer, that the co-operation of so many causes is fully adequate to account for the differences between the complexion of the Negro and of the Indian.

Thus have I concluded the examination, which I proposed, into the causes of the principal varieties of person that appear in the different nations of the earth. And I am happy to observe, on this subject, that the most accurate investigations into the power of nature ever serve to confirm the

facts vouched by the authority of revelation. A just philosophy will always be found to be coincident with true theology. The writers who, through ignorance of nature, or through prejudice against religion, attempt to deny the unity of the human species, do not advert to the confusion which such principles tend to introduce. The science of morals would be absurd; the law of nature and nations would be annihilated; no general principles of human conduct, of religion, or of policy could be framed; for, human nature, originally, infinitely various, and, by the changes of the world, infinitely mixed, could not be comprehended in any system. The rules which would result from the study of our own nature, would not apply to the natives of other countries who would be of different species; perhaps, not to two families in our own country, who might be sprung from a dissimilar composition of species. Such principles tend to confound all science, as well as piety; and leave us in the world uncertain whom to

trust, or what opinions to frame of others. The doctrine of one race, removes this uncertainty, renders human nature susceptible of system, illustrates the powers of physical causes, and opens a rich and extensive field for moral science. The unity of the human race I have confirmed by explaining the causes of its variety.—The first and chief of these I have shown to be climate; by which is meant, not so much the latitude of a country from the equator, as the degree of heat or cold, that depends on many connected circumstances. The next, is the state of society, which greatly augments or corrects the influence of climate, and is itself the independent cause of many conspicuous distinctions among mankind. These causes may be infinitely varied in their degree, and in their combinations with other principles. And in the innumerable migrations of mankind, they are modified by their own previous effects in a prior climate, and a prior state of socie-

ty*. Even where all external circumstances seem to be the same, there may be secret causes of difference, as there are varieties in the children of the same family. The same country often exhibits differences among individuals similar to those which distinguish the most distant nations. Such differences prove, at least, that the human constitution is susceptible of all the changes that are seen among men. It is not more astonishing that nations, than that individuals should differ †. In the one case,

* Vide pages 146 and 147.

† It would be lawful, if it were necessary, to have recourse to accidental causes to account for the varieties of nations; and to suppose that a country might have, at first, been peopled by some ancestor most like the natives in features and in figure. It would not be a strained supposition, because we frequently see deformed persons in civil society resemble almost every savage nation. And those who are acquainted with American migrations know, that, commonly, the most poor, and lazy, and deformed, are the first to push their fortune in a rude and savage wilderness, where they can live, without labour, by fishing and hunting.

we know with certainty, that the varieties have arisen out of the same origin; and, in the other, we have reason to conclude, independently on the sacred authority of revelation, that from one pair have sprung all the families of the earth.

STRICTURES

STRICTURES

ON

LORD KAMES'S DISCOURSE

ON THE

ORIGINAL DIVERSITY OF MANKIND.

LORD Kames, in a preliminary discourse to his Sketches of the History of Man, has undertaken to combat the principle which I have endeavoured to maintain, that all mankind are sprung from one pair. His reputation stands so high in the literary world, that we may justly presume he has comprehended in that dissertation whatever can be urged with solidity against this opinion. Every

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reader will probably deem the refutation of such an antagonist, no inconsiderable addition to the force of the preceding argument.

The character of Lord Kames, as an author, appears in this discourse far inferior to that which he has justly obtained from his other works. And in some strictures which I am now to make upon it, I propose to show that many of the supposed facts on which his Lordship relies in the train of his argument, have no existence, and that almost the whole of his reasoning is inconclusive.

In the first place he says, “ certain it is
“ that all men, more than all animals, are
“ not equally fitted for every climate.
“ There were therefore created different
“ kinds of men at first, according to the
“ nature of the climate in which they
“ were to live. And if we have any be-
“ lief in providence, it ought to be so.
“ Because men, in changing their climate

“ usually become sickly and often degenerate.”

This power of the climate to *change the person* which his Lordship confesses, when he calls it the *degenerating* of mankind, is the principle for which I plead ; and which, united with the influence of the state of society, is sufficient to explain all the changes that are visible in the different nations of the earth. Are not the inhabitants of Guinea and of Lapland, degenerated races compared with the inhabitants of France and England ? If these people had, in their own climates, attained the perfection of their nature, and the civilized Europeans had, by being transplanted thither, degenerated far below them, the argument then would have had some force. But since the greatest degeneracy of Europeans is only a resemblance of these savages, the example concludes against his Lordship's principle.

But men, he contends, were not made

for different climates, “because, in changing their climate, they usually become sickly.”

This argument supposes that man was not made for situations in which he is liable to encounter danger or disease. And yet we see him, as it were by the appointment of providence, continually encountering both. If this argument were of weight, man is only an intruder on this world; for, every where he meets with sickness, and with death. True it is, men, by making great and sudden changes of climate or of country, are exposed to disease. But it is equally true of similar changes even in the modes of living. And the argument proves only that all such alterations should be made gradually, and with precaution. If this prudential conduct be observed, the human constitution, as is known from actual experiment, is capable of enduring the influence of every climate. It becomes, in time, assimilated by its situation. And the progeny of foreigners come at length to resemble the natives, if

they adopt the same manners.—In America we are liable to disorder, by removing incautiously from a northern to a southern state; and even from one part to another of the same state: but it would be absurd to conclude thence, that we are not of one species from New-Hampshire to Georgia. Shall we conclude that the top of every hill, and the bank of every river are inhabited by different species, because the latter are less healthy than the former? The constitution becomes attempered, in a degree even to an unhealthy region, and then it feels augmented symptoms of disorder, on returning to the most salubrious air and water: but does this prove that nature never intended such men to drink clear water, or to breathe in a pure atmosphere? This argument destroys itself by the extent of the consequences which it draws after it.

His Lordship's second argument, which is only a repetition of part of the first, is certainly an extraordinary example of phi-

lofophic reasoning—"Men," fays he,
 "muft have been originally of different
 "ftocks, adapted to their refpective cli-
 "mates, becaufe an European degenerates
 "both in vigour and in colour on being
 "removed to South America, to Africa, or
 "to the Eaft Indies."

The fact is as his Lordfhip ftates it. An European changes his colour on being removed to thefe diftant climates. But one would think that true philofophy fhould have drawn from this fact a contrary conclufion. Certainly if an European had *not degenerated*, as he expreffes it, in colour and in vigour, on being removed to other climates, it would have been a ftronger proof of the original difference of races.

He confirms this obfervation, however, by the example of "a Portuguefe colony
 "on the coaft of Congo, who in a courfe
 "of time, he affirms, have degenerated fo
 "much, that they fcarce retain the ap-
 "pearance of men."

A fact more to the purpose of the preceding essay could not be adduced. Let it be applied to the neighbouring tribes of Negroes and of Hottentots. Though they, in like manner, are become so rude that scarcely do they retain the appearance of men, does not his Lordship's example prove that, in some remote period, they might have descended from the same origin with these degenerated Portuguese?

His Lordship has been egregiously deceived in the fact from which he attempts to prove that America is not adapted to European constitutions. He asserts that "Charlestown in Carolina is insufferably
"hot; because (says he) it has no sea-
"breeze—that Jamaica itself is a more
"temperate climate—and that the inha-
"bitants of both die so fast that if conti-
"nual recruits did not arrive from Eu-
"rope to supply the places of those that
"perish the countries would be soon de-
"populated."—How cautious should philo-
sophers be of asserting facts, without

well examining the authority on which they receive them! All these assertions are equally and entirely false. And if a philosopher, and a Lord of Sessions in Scotland, talks so ignorantly of that country which, from its long and intimate connection with Britain, he should have understood better than any other, we may justly presume that he is less acquainted with the Asiatic and African nations; and that the objections drawn from them by him, and by inferior writers, against the doctrine of one race, are still more weak and unfounded.

His Lordship uses, as another argument for the original diversity of species among mankind that common European mistake, that “the natives of America are destitute of hair on the chin and body.”

That philosophers should sometimes be deceived in their information is not surprising; but they are certainly blameable, after having found in so many repeated examples the falsehood of voyagers, or

their incapacity for observation, to rest, on such dubious tales, an argument against the most common and sacred opinions of mankind*.

His Lordship, in the next place says with truth, that “ the northern nations, to protect them from the cold, have more fat than the southern.”--But from this principle he draws a false conclusion, that “ therefore the northern and southern nations are of different races, adapted by nature to their respective climates.”—He ought to have drawn the contrary conclusion, that nature hath given such pliancy to the human constitution as to

* I have shown in the essay that this peculiarity has been falsely imputed to the natives of America ; and that they are not, in this respect, distinguished, by nature, from the rest of mankind. They have a custom, founded on a capricious idea of beauty, of pulling out their hair with tweezers. And hasty and superficial travellers have been deceived, by the apparent smoothness of the chin and body, into the imagination, that they are naturally destitute of this excrescence.

enable it to adapt itself to every clime. The goodness of the Creator appears in forming the whole world for man, and not confining *him*, like the inferior animals, to a bounded range, beyond which he cannot pass either for the acquisition of science, or for the enlargement of his habitation. And the divine wisdom is seen in mingling in the human frame such principles as always tend to counteract the hazards of a new situation. Fat protects the vitals from the too piercing influence of cold *. But this covering being too warm for southern regions, nature hath enabled the constitution to throw it off by perspiration. The physical cause of this effect ought to have been no secret to a philosopher who treats of *human nature*. Not to mention the natural effects of the relaxation of heat; or the bracing of cold, on the nourishment of the body; it is suf-

* Almost all animals that run wild in the forest, grow fatter at the approach of winter; and they still augment their fat by being removed to a latitude farther north.

ficient to observe, that the profuse perspiration that takes place in southern latitudes, carries off the oily with the aqueous parts, and renders the constitution thin ; but a frigid climate, by obstructing the evaporation of the oils, condenses them in a coat of fat that contributes to preserve the warmth of the animal system. Experience verifies this influence of climate. The northern tribes, which issued from the forests of Germany, and overrun the southern provinces of the Roman Empire, no longer retain their original grossness, and their vast size. The constitution of Spain, and of other countries in the south of Europe is thin ; and the Europeans in general have become more thin by emigrating to America. Here is a double experiment, within the memory of history, made on entire nations. Many single examples will occur to every man's observation. The argument, therefore, which this writer derives from the fatness of one nation, and the leanness of another, is inconclusive for the purpose for which

he urges it, the proof of different species of men.

His next attempt is to prove that negroes are of a different species from whites. He says, "their skin is more cool and
" adapted to their fervid climate. For a
" thermometer applied to the body of an
" African, will not indicate the same de-
" gree of heat as when applied to the bo-
" dy of an European."

The fact I will not dispute. But admitting it to be true with regard to the Europeans who travel to Africa, it is capable of explanation on the known principles of natural science. Perspiration from the human body is analogous to the evaporation of fluids, which is one of the most cooling processes in nature. It becomes a conductor to the internal heat, which it carries off as fast as it is excited, and thereby preserves the body in a moderate temperature. But when perspiration is obstructed, the retained heat immediately raises a fever in the system.

The more profuse therefore the perspiration is, under the same degree of external heat, the more temperate will be the warmth of the skin*. In sweating, the skin is sensibly cooler than before the sweat begins to issue from the pores. In the torrid zone the heat relaxing and opening the pores of the natives, will render both sensible and insensible perspiration in them more copious and constant, than in the natives of northern regions who remove thither. Their constitution not being yet perfectly accommodated to the climate, they do not perspire so freely. Being more full of blood, and highly toned, they suffer, in that fervid climate,

* For a similar reason likewise, among others, the surfaces of all fluids, preserve a greater coolness under the action of the direct rays of the sun than the surfaces of solid bodies. The action of the sun produces evaporation; and by this vapour the excited heat is conducted off, which, by remaining in solid bodies, renders them warmer than fluids. And this is equally true, whether we consider heat, with modern philosophers, as an element, or with the old philosophers, as only an internal commotion of parts.

the additional heat of an habitual fever. If the fact however be, as his Lordship states it, the experiment must have been made on the whites in Africa, before the constitution was properly reduced to suffer the intense heats of that region. For, in this climate, I can affirm from actual experiment, that the skin of a negro is not cooler than that of a white person. I have applied the thermometer successively to two persons in my family of the same sex, and nearly of the same age, the one white, and the other black; and after making the trial in all respects as equal as possible, I have not been able at the end of half an hour to discover any difference in the elevation of the mercury.

Some of his Lordship's following remarks and reasonings, I beg leave to treat a little more briefly.

“ Is it possible (he asks) to account for
“ the low stature, and little feet, and large
“ head of the Esquimaux? or for the low

“ stature and ugly visage of the Laplanders, by the action of cold?”

I have endeavoured to account for them from the *action of cold* in conjunction with *the state of society*.

“ But the difference of latitude (he says) between the Laplanders, and the Norwegians and Finns, is not sufficient to account for the difference of features.”

I have already explained the reason of this phenomenon. The temperate climates border upon eternal cold, and civilized on savage society, in every quarter of the globe. I have shown that the forces of these two powerful causes combined, are fully adequate to account for these different effects.

His Lordship confesses, that “ it has been lately discovered by the *Pere Hel*, an Hungarian, that the Laplanders were originally Huns.”

Pere Hel has no doubt given authentic evidence of the fact, as appears by the conviction it has produced in his Lordship. But it is strange that it should not have occurred to this ingenious writer, that, from the same Huns are descended, likewise, some of the most beautiful nations in Europe.

As an objection against the power of climate to change the complexion, he says, “ the Moguls and the southern Chinese “ are white.” If he means that they are not black, it is true : If he means that they are as white as the Europeans, it is false. If the Moguls are less discoloured than some other nations in the same latitude, I have before assigned the reason. The state of civilization to which they had arrived, previously to their taking possession of their present seats, enabled them to defend themselves with some success against the impressions of a new climate.

His Lordship adds, “ Zaara is as hot as “ Guinea, and Abyssinia is hotter than

“ Monomotapa, and yet the inhabitants
“ of the former are not so black as those
“ of the latter.” His Lordship’s historical, as well as physical, knowledge, needs a little emendation. Zaara is not so hot as Guinea; nor is Abyssinia so hot as Monomotapa. But if it were equally hot, there are other causes that produce a wide difference between the figure and complexion of those nations*. The Abyssinians are civilized, the Monomotapans are savage. The Abyssinians derive their origin from Arabia; and civilization enables them to preserve their original features. The Monomotapans are evidently descended from the negroes of the equator, and their savage habits have continued the figure of their ancestors with little variation.

His Lordship proceeds, “ there are many
“ instances of races of people preserving
“ their original colour in climates very
“ different from their own.” This is

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* See page 130 of the Essay.

nearly true of civilized nations, the reasons of which have been already assigned. It is not, however, by any means true, in the extent in which he asserts it *. He adds, “ and there is not a single instance to the contrary.” To his Lordship, the Portuguese of Congo might have been that instance.

Another argument for the original diversity of nations, on which some reliance is placed in this preliminary discourse, is taken from the variety of disposition, spirit and genius existing in different countries.

On this part of the subject some of his remarks are so ridiculously weak, that it is difficult to treat them with a serious face. Some of the oriental islands he mentions *whose inhabitants are hostile, and others whose inhabitants are hospitable to strangers, and*

* This has been sufficiently shown in the preceding Essay.

thence concludes *a diversity of species*. Kindness or aversion to strangers depends on so many contingent causes, that there cannot be a more equivocal foundation on which to rest the argument for different races. Nations that have been often exposed to hostile attacks, will be suspicious of foreigners; and prone to repel them: Nations who have seldom seen the face of an enemy will be disposed to receive them with kindness and hospitality. As well might he have proved, that Europe in the tenth, and in the eighteenth century, was inhabited by different species of men, from the facility and security with which a stranger can now pass through all its kingdoms, and the hazards to which he was then exposed. His Lordship goes on to confirm this argument by the example of some nations *who are full of courage and prompt to combat*; and of others who hardly know the *arts of war*, or have *confidence to meet an enemy in battle*. With equal reason I might conclude that the Greeks are not the same species now as when they

gave birth to Agefilaus, Miltiades, and Alexander: That the Romans were not the same species under Cæsar when they conquered, as under Augustulus when they lost a world. And that, among the Jews, the Essenes, who were peaceful hermits in the forest, were not the same species with the martial Pharisees who resisted Titus. But the argument is too absurd to merit even this answer.

He speaks in the next place of the "*cowardice of the American Indians*," of whom he is manifestly ignorant, as a criterion of a distinct species. He proves the character, because they do not fight like the Europeans in an open field. An Indian philosopher, who should have examined the subject as superficially as Lord Kames, would probably retort the charge of cowardice on the Europeans, because they do not suffer torture like the natives of America. Nations have different ideas of courage and honour, and they exert these principles in different ways. The military education of an Indian consists in

learning to make war by stealth, and to suffer with heroic fortitude. The reasons of their conduct in both, arise naturally out of their state of society*. No people have superior courage. They differ from civilized nations only in the manner of exercising it.

Another example of difference of disposition, which proves, in his Lordship's opinion, diversity of race, he gives in "the Giagas, a nation of Africa, who bury all their own children as soon as born, and supply their places with others stolen from the neighbouring tribes." On this tale I have made the proper comment already. If his Lordship's opinion were not well known, we should suspect that he reasoned in this weak manner only to expose to ridicule his favourite doctrine of the difference of species among men. Surely no devotee was ever guilty of more implicit faith than this unbeliever!

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* These reasons are well illustrated in Dr Robertson's History of America.

The Japanefe, his Lordfhip esteems, on this fubject, a valuable example. “ The Japanefe (fays he) differ effentially from the reft of mankind; becaufe when others would kill their *enemies*, they kill *themselves* through fpite.” If I miftake not, a native of this felf-murdering country might find many of the fame tribe under London bridge.

The Japanefe furnifh his Lordfhip with another example equally good. “ They never fupplicate the gods, like other men, in diftreff.” That difference is certainly very ftriking, between them and a certain clafs of men who never fupplicate their Maker at any other time. And yet I have known many Japanefe, in my time, who have even curfed their Maker, in diftreff, as the author of their misfortunes.

His Lordfhip acknowledges indeed that thefe arguments are not altogether conclufive; and therefore he proceeds to produce others that he esteems more perfect in their

kind. These I shall quote at full length, that I may diminish nothing of their force; and endeavour to answer in as few words as possible.

“ But not to rest upon presumptive evidence, (says he) few animals are more
“ affected than men generally are, not only
“ with change of seasons in the same climate,
“ but with change of weather in the
“ same season. Can such a being be fitted
“ for all climates equally? Impossible
“ —horses and horned cattle sleep on the
“ bare ground wet or dry without harm,
“ and yet were not made for every climate:
“ can a man then be made for
“ every climate, who is so much more delicate,
“ that he cannot sleep on wet ground
“ without the hazard of some mortal disease”?—This is the argument. But it is refuted by the whole experience of the world. The human constitution is the most delicate of all animal systems: but it is also the most pliant, and capable of accommodating itself to the greatest variety

ty of situations. The lower animals have no defence against the evils of a new climate but the force of nature. The arts of human ingenuity furnish a defence to man against the dangers that surround *him* in every region. Accordingly we see the same nation pass into all the climates of the earth—reside whole winters at the pole—plant colonies beneath the equator—pursue their commerce and establish their factories, in Africa, Asia, and America. They can equally live under a burning, and a frozen sky, and inhabit regions where those hardy animals could not exist.—It is true, such great changes ought not to be hazarded suddenly and without precaution. The greatest evils that have arisen from change of climate have been occasioned by the presumption of health that refuses to use the necessary precautions, or the neglect of ignorance that knows not what precautions to use*. But

* Captain Cook has merited great praise for the service he has rendered to mankind, by improving the art of preserving health in long voyages, through the most distant climates.

when changes are gradually, and prudently effected, habit soon accommodates the constitution to a new situation, and human ingenuity discovers the means of guarding against the dangers of every season, and of every climate.

But “men (says his Lordship) cannot “sleep on the wet ground without hazard “of some mortal disease:” and therefore he concludes, that “they were not fitted for all climates.”—I suppose by *men* he means Europeans; because the savages of America sleep on the ground without hazard, in every change of weather. Whether he admits the savage into the rank of men or not, he concludes, from this circumstance, that they are of a different species from the civilized and polished people of Europe.—If his Lordship had visited the forests of America, he would have found in this, as well as in other instances, how little he was acquainted with human nature. He would have seen this argument, on which he rests as a capital

proof, totally overturned. He would have seen Europeans, or the descendants of Europeans, become by habit, as capable as savages, of using the naked earth for their bed, and of enduring all the changes of an inclement sky. The Anglo-Americans on the frontiers of the states, who acquire their sustenance principally by hunting, enter with facility into all the habits of savages, and endure with equal hardiness the want of every convenience of polished society *. So that this argument, like all

* Not only the hunters, who have been long used to that mode of life, are able to lodge, without injury, on the wet ground, and under all seasons; but the large companies of men, women, and children, who are continually removing from the interior parts of the United States, to the western countries, for the sake of occupying new lands, encamp every night in the open air. They sleep on the earth, and frequently under heavy showers of snow or rain. They kindle a large fire, in the centre of their encampment, and sleep round it, extending their feet towards the pile. And many of them have assured me that, while their feet are warm, they suffer little inconvenience from the vapour of the ground; or even from rain or snow.

the rest, is not only inconclusive to his purpose, but militates against him.

“ But the argument I chiefly rely on,
 “ (says his Lordship) is, that were all men
 “ of one species, there never could have
 “ existed, without a miracle, different
 “ kinds, such as exist at present. Giving
 “ allowance for every supposable varia-
 “ tion of climate, or of other causes, what
 “ can follow but endless varieties among
 “ individuals, as among tulips in a garden?
 “ Instead of which we find men of differ-
 “ ent *kinds*; the *individuals* of each kind
 “ remarkably uniform, and differing no
 “ less remarkably from the individuals of
 “ every other *kind*. Uniformity without
 “ variation is the offspring of nature, ne-
 “ ver of chance.”

How often do philosophers mistake the eagerness and persuasion of their own minds, for the light of truth and reason!—The first part of this argument is no more than an ardent and zealous assertion. As it rests on no proof, it needs no refutation. And

I confidently appeal to the attentive and reflecting reader to judge, whether I have not assigned adequate causes of this effect, without the supposed necessity of recurring to miracle.

The second part of this argument, on which so much reliance is placed, contains a fine similitude; but that “similitude” operates directly against his principle. “What can follow, he asks, but endless varieties among individuals, as among tulips in a garden?”—I answer, that such varieties among individuals are found in every climate, in every region, in every family. But different climates must necessarily produce varieties not among *individuals* but among *kinds*. For the same climate or the same state of society, operating uniformly as far as it extends, must produce a certain *uniformity* in the *kind*, and operating *differently* from every other climate, or every other state of society, must render that *kind different* from all others.—“Uniformity, (says he) is the offspring of nature never of chance.”

Could his Lordship mean to insinuate by this remark, that the operations of climate are the effect of chance, or that all its varieties are not governed by uniform and certain laws? Philosophy is ashamed of such reasoning in one of her champions!

He adds, “ there is another argument
“ that appears also to have weight, horses
“ with respect to size, shape and spirit, differ
“ widely in different climates. But
“ let a male and female of whatever climate,
“ be carried to a country where
“ horses are in perfection, their progeny
“ will improve gradually, and will acquire,
“ in time, the perfection of their
“ kind. Is not this a proof that all horses
“ are of one kind?”

His Lordship hardly needs an opponent, he reasons so strongly against himself. The species of men, no less than that of horses, changes its appearance by every removal to a new climate, and by every alteration of the state of society. The present nations of Europe are an example in

the way of improvement; the Europeans which he acknowledges have degenerated by removing to Africa, Asia, and South America, are an example in the contrary progression. Carry the natives of Africa or America to Europe, and mix the breed, as you do that of horses, and they will acquire in time, the high perfection of the human form which is seen in that polished country. Men will acquire it in the same number of descents as these animals. No, says his Lordship, “a mullatto will “be the result of the union of a white “with a black*.”

That is true in the first descent, but not in the fourth or fifth; in which, by a proper mixture of races, and by the habits of civilized life, the black tinge may be entirely effaced. I.

* The same thing, his Lordship might have remarked, takes place in horses as in the human race. The properties of two different breeds will, in the first descent, be equally blended in the offspring.

There is, at present, in the College of New-Jersey, a striking example of a similar nature, in two young gentlemen of one of the first families in the state of Virginia, who are descended, in the female line, from the Indian Emperor Powhatan. They are in the fourth descent from the Princess Pocahuntis, a high-spirited and generous woman. And though all their ancestors in Virginia have retained some characters, more or less obvious, of their maternal race, yet, in these young gentlemen, they seem to be entirely effaced. The hair and complexion, of one of them in particular, is very fair, and the countenance and figure of the face is perfectly Anglo-American. He retains only the dark and vivid eye that has distinguished the whole family, and rendered some of them remarkably beautiful. His Lordship's argument, therefore, if it be good, is a clear proof against himself, that all men are of one kind.

He concludes, however, from the preceding remarks which he has made, " that

“ mankind must have been originally crea-
“ ted of different species, and fitted for
“ the different climates in which they
“ were placed, whatever change may have
“ happened, in later times, by war or
“ commerce.”

Let us ask, why *fitted* for the different climates in which they were placed?—The proper answer is, because they could not exist in other climates; or, because they attain the greatest perfection of their nature only in their own. Both these reasons, in the present case, are inconsistent with experience. Let us remember “ the
“ changes that have been produced by war
“ and by commerce.” Nations have transplanted themselves to other climes; yet they continue to exist and flourish—foreigners have become assimilated to the natives. Instead of attaining, in their primitive abodes, the perfection of their nature, they have improved by migrating to new habitations. The Goths, the Moguls, the Africans, have become infinitely meliorated by changing those skies, for which

it is said they were peculiarly fitted by nature. They must therefore have defeated, or improved upon, the intentions of their Creator; or, at least, have shown the precautions attributed to Him, by this author, to have been unnecessary. Lord Kames, having endeavoured to demonstrate, in the manner we have seen, the existence of original varieties among mankind, proceeds to the conclusion in an equal stream of cogent reasoning. “ There is a remarkable
“ fact (says his Lordship) which confirms
“ the foregoing conjectures: as far back as
“ history goes, the earth was inhabited by
“ savages divided into many small tribes,
“ each tribe having a language peculiar to
“ itself. Is it not natural then to suppose
“ that these original tribes were different
“ races of men placed in proper climates,
“ and left to form their own language?
“ But this opinion we are not permitted
“ to adopt, being taught a different lesson
“ by revelation. Though we cannot doubt
“ of the authority of Moses, yet his account of the creation is not a little

“ puzzling. According to that account
“ all men must have spoken the same lan-
“ guage, viz. that of our first parents. But
“ what of all seems the most contradictory
“ to that account is the *savage state*. Adam,
“ as Moses informs us, was endued by his
“ Maker, with an eminent degree of
“ knowledge; and he certainly must have
“ been an excellent preceptor to his chil-
“ dren, and their progeny, among whom
“ he lived several generations. Whence
“ then the degeneracy of all men to the
“ savage state? To account for that dis-
“ mal catastrophe mankind must have suf-
“ fered some terrible convulsion. That
“ terrible convulsion is revealed to us in
“ the history of the tower of Babel. By
“ confounding the language of all men,
“ and scattering them abroad upon the
“ face of the earth, they were rendered
“ savages. And to harden them for their
“ new habitations, it was necessary that
“ they should be divided into different
“ kinds, fitted for different climates. With-
“ out an immediate change of bodily con-
“ stitution, the builders of Babel could not

“ possibly have subsisted, in the burning
“ region of Guinea, or in the frozen re-
“ gion of Lapland. If the common lan-
“ guage of men had not been confound-
“ ed upon their attempting the tower of
“ Babel, I affirm that there never could
“ have been but one language. Antiqua-
“ ries constantly suppose a migrating spi-
“ rit in the original inhabitants of the
“ earth, not only without evidence, but
“ contrary to all probability. Men never
“ desert their connexions nor their coun-
“ try without necessity. Fear of enemies;
“ and of wild beasts as well as the attrac-
“ tion of society, are more than sufficient
“ to restrain them from wandering; not
“ to mention that savages are peculiarly
“ fond of their natal soil.”

When ignorance begins to sneer at re-
velation, and at opinions held sacred by
mankind, it is too contemptible to provoke
resentment; or to merit a retaliation in
kind.—When a philosopher descends to
the dishonest task, the most proper treat-

ment is to hold out to the world his weakness and mistake. Mankind will heap upon him the contempt he deserves for intermeddling with a subject he does not understand. Absurdity and error are at no time so despicable as when, in a ridiculous confidence of shrewdness and sagacity, they assume airs of superiority and sneer. It would be tedious to remark all the weaknesses of the paragraph I have just quoted. One I will point out, and then I shall show, that the whole foundation of this reasoning is false, and indicates an utter ignorance of human nature in that state of society of which he speaks.

“ Without an immediate change of bodily constitution (says he) the builders of Babel could not possibly have subsisted in the burning region of Guinea, or the frozen region of Lapland.” Yet experience teaches us that mankind can exist in every climate. The Europeans, to mention no others, have armies, or colonies, in all the regions of the globe. And if his Lordship believes that the intensity

of a frozen, or a torrid climate, was sufficient to have destroyed the builders of Babel, he should have no objection surely, after such a declaration, to acknowledge that they might have altered the figure, or changed the complexion. Yet his whole object is to combat this principle. He allows the greater, he denies the less effect. But errors, or contradictions of this kind, Lord Kames, in his zeal against an obnoxious doctrine, easily overlooks.

I proposed in the next place to show, that the whole foundation on which the reasoning in this paragraph rests is false, and only proves his ignorance of human nature in that state of society of which he speaks.—It rests on two principles, *1st*, That the children of Adam or Noah could never have become savage if these fathers of the race were the wise men which Moses represents them to be;—and *2^{dly}*, That there never could have existed a diversity of languages. On the other hand, I doubt not of being able to prove that the savage

condition of the greater part of the world was the necessary consequence of one family, and of the state of the earth as Moses represents it immediately after the deluge.—And that out of the savage state, diversity of languages would naturally arise.

I am not now going to explain the history of Babel, or to unfold or defend the miracles recorded in the sacred scriptures. I take the matter on his Lordship's ground, who, no doubt, most devoutly and fervently disbelieves all miraculous interposition of the Deity, and shew that, in *the nature of things*, man would become savage, and language would become divided.

Man descended after the deluge into an immense wilderness, in which the beasts would naturally multiply infinitely faster than the human race. Agriculture would probably, from habit and inclination, be the employment of Noah, and his immediate descendants; and with them would commence the civilized state which can

be traced without interruption, from the countries which they occupied, and the period in which they lived, down to our country, and to the present times.—But agriculture furnishes too slow and laborious a subsistence to be grateful to all men. Many, in the midst of a wilderness filled with beasts, would be ready to forsake the toils of clearing and cultivating the ground, and to seek their provision from the chase, which has been ever a favourite exercise of mankind, particularly in rude ages. Hunting would soon spread them over extensive regions, and disperse them widely from one another. Single families, or collections of a few families, seated in separate districts of a country almost boundless, would become independent tribes, and the mode of procuring subsistence would render them savage. His Lordship supposes that there is an invincible objection against such dispersion, and such manners, in the example and advice of a venerable ancestor, and in the social disposition of mankind.—The example and advice of

Noah and his sons would doubtless have great influence on that civilized people, which would naturally grow up round their immediate habitation. But how should they influence their remote descendants who were ranging the forests at the distance of an hundred or a thousand leagues? To answer this question, he confidently pronounces that mankind would always have been within the reach of this example, because they never would have separated from one another, and from the pleasures of improved society.—“ Men
“ (says he) never desert their connexions,
“ nor their country, without necessity.—
“ Fear of enemies, and of wild beasts, as
“ well as the attractions of society, are
“ more than sufficient to restrain them from
“ wandering : not to mention that savages
“ are peculiarly fond of their natal soil.”

These ideas are derived from civilized society, and are not applicable to savage life. 'Tis ridiculous to talk of the fear of wild beasts to men whose diversion it is to pursue and slay them;—and not much

less absurd is it to talk of the attractions of society, and of attachments to a natal soil, to people in a wilderness, to whom migration is a habit—to whom every spot of ground is equal where they can find game—and who feel the charms of the chase more sensibly than the charms of society. What is the pleasure of society in that rude state?—Destitute of sentiment, or conversation, it is little more than the pleasure that dumb animals feel at the approach of other animals of the same species. The chase, which to them is productive of higher and stronger enjoyments, easily breaks the feeble ties of such society; and hunters, like beasts of prey, delight in solitudes and deserts.—Men in such a state migrate through caprice, or through curiosity, or for the convenience of hunting.—The influence of extensive lands lying in common, and ready to be occupied by the first comer, is extremely visible on the inhabitants of these United States. Their fathers came from Europe with all those fixed habits, and those tendencies to local attachments which can rea-

sonably be imputed to any people. They took possession of a boundless forest, which had a speedy and an astonishing effect on their manners. The Anglo-Americans discover comparatively little attachment to a native soil. No hereditary possession, no objects of antiquity seize the imagination, and fix it to a certain spot. The people migrate without reluctance to the greatest distances—they change their habitations as soon as they become straitened in their quarters—and forsake their friends, and the place of their nativity, for apparently small conveniences. This is more the case as you pass from the cultivated lands near the ocean, towards the western frontiers. In proportion as the citizens of the states approach the vicinity of the Indian tribes, similarity of situation produces also a great approximation of manners. If his Lordship had seen America, he would have seen men forever migrating from the midst of society to uncultivated deserts—he would have often seen them forsake the constraints of civilization, for the independence, and the charms of a state approach-

ing to savage—he would have seen the frontiers of all the United States filled with the descendants of Europeans, who have, in a great measure, adopted the manners of the native Indians, along with their mode of procuring subsistence—he would have seen these people, as society advances upon them from the cities, and the sea-coast, retreating before it into the wilderness—he would have seen men decline the labours of agriculture as a toil, and prefer the fatigues of hunting to all other pleasures—he would have seen that mankind often find charms in the indolence and independence of the savage state superior to those that result from the refinements and attractions of civil society, which must be purchased with labour, and held by subordination—he would have seen that wanderers have no *attachment*, as he supposes, *to their natal soil*—he would have seen multitudes of the people of these United States, change their habitations without regret—he would have seen the Indians, either singly, or in companies, travel for many moons successively, to explore other forests,

and to seek for other rivers—he might have seen whole tribes rise from their seats at once, and carrying with them the bones of their fathers, seek new habitations at the distance of an hundred or two hundred leagues.—But his Lordship has not seen them, and he speaks of the savage state without understanding it, and of human nature, in the beginning of time, without knowing how it would operate then, or how it has operated, in similar situations, in later periods. Like many other philosophers, he judges and reasons only from what he has seen in a state of society highly improved; and is led to form wrong conclusions from his own habits and prepossessions. On his principles, a savage state could never have existed, on the supposition of many races of men, more than of one. *Fear of wild beasts*, and *the attractions of society* would have held each race together and *prevented their dispersion*. Every art of agriculture would have been tried, before they would have extended their habitations into the *dangerous wilderness*. A civilized communi-

ty would have arisen round their first habitations. And when they should have been compelled by necessity to enlarge their limits, they would have done it in society. The forest would have fallen before them as they advanced; and fear and the social principle would have equally contributed to restrain them from the hazards and the dispersion consequent upon the spirit of the chase. The world, instead of being filled with numerous tribes of savages, would have every where presented to us civilized and polished nations. His Lordship, on this subject, for ever reasons against himself. He means to combat the doctrine of one race by the existence of the savage state; which yet, is a necessary consequence of that doctrine, and would be certainly precluded on his own principles.

His Lordship's next error consists in asserting that, "on the supposition of one
" race, there never could have existed a
" diversity of languages." This error is the consequence of the preceding.

Both principles are intimately connected together. Similarity of language would naturally have arisen out of universal civilization, continued down from the original of the race. Diversity of language necessarily springs out of the savage state. The savage state has few wants, and furnishes few ideas that require *terms* to express them. The habits of solitude and silence incline a savage rarely to speak. When he speaks it is chiefly in figures, and the same terms are used for different ideas*.

* Savages speak so much by figure, and even by gesture; that it greatly contracts the limits of their language. They have no adjectives, no particles, no abstract terms, no singular denominations. They have no parts of speech but the substantive and the verb. Their verbs are confined to a very few states and actions of animals; and perhaps some other objects of nature that are most familiar. Their substantives consist of a few general names of animals, of vegetables, and of some of the most obvious parts of the inanimate world, such as rocks, rivers, mountains. When they would express a quality, they do it figuratively by applying the name of one sensible object to another. A swift man is a deer; a wise or an artful man is a fox; a strong, a furious, or a cou-

Speech must, therefore, be extremely narrow, in this rude condition of men. It must, likewise, be extremely various. Every new region, and every new climate, will present different ideas, and create different wants, that will naturally be expressed by various terms. Hence will originate great diversity in the first elements of speech among all savage nations. If a few common principles should be handed down from the original family; yet these, in time, would be changed by the usual flux of language. Tongues would become as various as the tribes of men. Speech being, therefore, in the first ages, both extremely narrow, and extremely diversified, these rude people would begin their progress towards improvement, with few, or with no elements in common. And in

rageous man, is a bear. Thus by applying the same term to signify several ideas, by having but two parts of speech, and these derived from few objects, and by using gestures frequently to supply the place of the verb, speech is reduced, among them, to a narrow compass.

the infinite multitude of words which civilization and refinement add to language, no two nations, perhaps, have ever agreed upon the same sounds to represent the same ideas. Superior refinement, indeed, may induce imitation, conquests may impose a language, and extension of empires may melt down different nations, and different dialects, into one mass. But independent tribes naturally give rise to diversity of tongues. Thus, perhaps, the speech of men was at first one—it became gradually divided into a multitude of tongues—and the progress of civilization, and the mixing of nations by conquest or by commerce, tends to bring it back again towards one standard—His Lordship fails in every proof.—And this last argument, which he deemed among the strongest, against the history of the scriptures, and the common origin of mankind, militates like the rest against himself, and confirms the doctrine that he opposes.

Such is the attack which this celebrated philosopher has made on the doctrine of

one race. In all the writings of this author, there is not another example of so much weak and inconclusive reasoning. This ought in justice to be imputed to the cause; and not to the writer. His talents are universally acknowledged. It was for that reason I chose to make these strictures on him; rather than on an author of inferior name. He has probably shown the utmost force of that cause which he has undertaken to defend. If he has failed, it is only because it is incapable of defence. For, to him I may apply the lines which, on another subject, he applies to Dr Robertson.

*Si Pergama dextrâ
Defendi possent, etiam hæc defensa fuissent.*

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